

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE 1 OF 2 PAGES	
2. AMENDMENT/MODIFICATION NO. 0001		3. EFFECTIVE DATE 2 SEP 98		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY Department of the Army Corps of Engineers Fort Worth District		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(✓)		9A. AMENDMENT OF SOLICITATION NO. DACA63-98-B-0054	
				X		9B. DATED (SEE ITEM 11) 12 AUGUST 1998	
						10A. MODIFICATION OF CONTRACTS/ORDER NO.	
						10B. DATED (SEE ITEM 13)	
CODE				FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The Solicitation for STANDING SEAM METAL ROOF, BUILDING 350, FORT POLK, LOUISIANA, is amended as follows:

See Continuation Sheet.

NOTE: Bid Opening Date is "14 September 1998, 2 p.m. local time," as previously announced.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	

NSN 7540-01-152-8070
PREVIOUS EDITION UNUSABLE

30-105-02

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

USAPPC V1.00

Item 14. Continued.

a. Wage Rates.- Replace wage rate pages 00710-1 through 00710-30 with the attached pages 00710-1 through 00710-30, each page bearing the notation "ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0054."

b. Specifications.- The following listed sections shall be voided and the accompanying new sections of the same title and number, each bearing the notation "ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0054," shall be substituted therefor:

<u>Section No.</u>	<u>Title</u>
07412	Manufactured Wall Panels
07416	Structural standing Seam Metal Roof (SSSMR) System
07600	Sheet Metalwork, General
08305	Access Doors

c. Drawings.- Replace the drawings listed below with the attached new drawings of the same number, bearing the notation "AM #0001":

<u>Sheet No.</u>	<u>Title</u>
A6.2	ROOF PLAN - NEW CONSTRUCTION
A6.3	ROOF BLDG. SECTIONS
A6.4	ROOF DETAILS
A6.6	ROOF DETAILS
A6.8	EXTERIOR ELEVATIONS
S2	STRUCTURAL SECTIONS AND DETAILS
S4	STRUCTURAL STEEL DETAILS AND GENERAL NOTES

GENERAL DECISION LA980005 08/14/98 LA5
General Decision Number LA980005

Superseded General Decision No. LA970005

State: **Louisiana**

Construction Type:
BUILDING

County(ies):

ACADIA	GRANT	SABINE
ALLEN	IBERIA	ST HELENA
ASSUMPTION	IBERVILLE	ST JAMES
AVOYELLES	JACKSON	ST LANDRY
BEAUREGARD	JEFFERSON DAVIS	ST MARY
BIENVILLE	LA SALLE	TANGIPAHOA
CALDWELL	LAFOURCHE	TENSAS
CAMERON	LINCOLN	TERREBONNE
CATAHOULA	MADISON	UNION
CLAIBORNE	MOREHOUSE	VERMILION
CONCORDIA	NATCHITOCHE	VERNON
DE SOTO	OUACHITA	WASHINGTON
EAST CARROLL	PLAQUEMINES	WEBSTER
EAST FELICIANA	POINTE COUPEE	WEST CARROLL
EVANGELINE	RED RIVER	WEST FELICIANA
FRANKLIN	RICHLAND	WINN

BUILDING CONSTRUCTION PROJECTS (Does not include single family homes & apartments up to and including 4 stories)

Modification Number	Publication Date
0	02/13/1998
1	02/20/1998
2	03/20/1998
3	04/03/1998
4	04/10/1998
5	05/22/1998
6	06/05/1998
7	06/26/1998
8	07/10/1998
9	08/14/1998

COUNTY(ies):

ACADIA	GRANT	SABINE
ALLEN	IBERIA	ST HELENA
ASSUMPTION	IBERVILLE	ST JAMES
AVOYELLES	JACKSON	ST LANDRY
BEAUREGARD	JEFFERSON DAVIS	ST MARY

BIENVILLE	LA SALLE	TANGIPAHOA
CALDWELL	LAFOURCHE	TENSAS
CAMERON	LINCOLN	TERREBONNE
CATAHOULA	MADISON	UNION
CLAIBORNE	MOREHOUSE	VERMILION
CONCORDIA	NATCHITOCHE	VERNON
DE SOTO	OUACHITA	WASHINGTON
EAST CARROLL	PLAQUEMINES	WEBSTER
EAST FELICIANA	POINTE COUPEE	WEST CARROLL
EVANGELINE	RED RIVER	WEST FELICIANA
FRANKLIN	RICHLAND	WINN

ASBE0021D 05/01/1997

	Rates	Fringes
BIENVILLE, CALDWELL, CLAIBORNE, DE SOTO, GRANT, JACKSON, LINCOLN, NATCHITOCHE, OUACHITA, RED RIVER, SABINE, UNION, WEBSTER & WINN PARISHES:		

ASBESTOS WORKERS/INSULATORS (Includes application of all insulating materials, protective coverings, coatings & finishings to all types of mechanical systems)

16.14

4.25

ASBE0053A 02/24/1997

	Rates	Fringes
ASSUMPTION, AVOYELLES, CATAHOULA, CONCORDIA, EAST FELICIANA, IBERIA, IBERVILLE, LAFOURCHE, LA SALLE, PLAQUEMINES, POINTE COUPEE, ST. HELENA, ST. JAMES, ST. LANDRY, ST. MARY, TANGIPAHOA, TERREBONNE, WASHINGTON & WEST FELICIANA PARISHES:		

ASBESTOS WORKERS/INSULATORS (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems)

16.88

3.95

ASBE0112A 05/01/1993

	Rates	Fringes
ACADIA, ALLEN, BEAUREGARD, CAMERON, EVANGELINE, JEFFERSON DAVIS, VERMILION & VERNON PARISHES		

ASBESTOS WORKERS/INSULATORS (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems)

19.145

2.335

ASBE0114A	07/01/1993		
		Rates	Fringes
EAST CARROLL, FRANKLIN, MADISON, MOREHOUSE, RICHLAND, TENSAS & WEST CARROLL PARISHES:			
ASBESTOS WORKERS/INSULATORS (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems)			
		14.75	3.80

BOIL0037A	08/08/1996		
		Rates	Fringes
ASSUMPTION, LAFOURCHE, PLAQUEMINES, ST. JAMES, TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES:			
BOILERMAKERS			
		18.48	5.45

BOIL0079A	08/08/1996		
		Rates	Fringes
ACADIA, ALLEN, BEAUREGARD, BIENVILLE, CAMERON, CLAIBORNE, DE SOTO, EVANGELINE, GRANT, IBERIA, JACKSON, JEFFERSON DAVIS, LINCOLN, NATCHITOCHEs, RED RIVER, SABINE, ST. LANDRY, ST. MARY, UNION, VERMILION, VERNON , WEBSTER & WINN PARISHES:			
BOILERMAKERS			
		18.48	5.45

BOIL0582A	11/01/1997		
		Rates	Fringes
AVOYELLES, CALDWELL, CATAHOULA, CONCORDIA, EAST CARROLL, EAST FELICIANA, FRANKLIN, IBERVILLE, LA SALLE, MADISON, MOREHOUSE, OUACHITA, POINTE COUPEE, RICHLAND, ST. HELENA, TENSAS, WEST CARROLL & WEST FELICIANA PARISHES:			
BOILERMAKERS			
		19.35	5.75

BRLA0001A	05/01/1996		
		Rates	Fringes
BRICKLAYERS & STONEMASONS:			
AREA 1			
		13.75	3.20
AREA 2			
		14.11	2.60
AREA 3			
		13.25	.95

AREA 4	14.30	2.80
--------	-------	------

BRICKLAYER & STONEMASON AREA DEFINITIONS

AREA 1 - Acadia, Allen, Beauregard, Cameron, Jefferson Davis &
VERNON Parishes

AREA 2 - Assumption, East Feliciana, Evangeline, Iberia,
Iberville, Pointe Coupee, St. Helena, St. Landry, St. Mary,
Tangipahoa, Vermilion, Washington & West Feliciana Parishes

AREA 3 - Avoyelles, Bienville, Caldwell, Catahoula, Claiborne,
Concordia, De Soto, East Carroll, Franklin, Grant, Jackson,
La Salle, Lincoln, Madison, Morehouse, Natchitoches, Ouachita,
Red River, Richland, Sabine, Tensas, Union, Webster,
West Carroll & Winn Parishes

AREA 4 - Lafourche, Plaquemines, St. James & Terrebonne Parishes

BRLA0001E 05/01/1996

	Rates	Fringes
MARBLE SETTERS:		
AREA 1	13.72	3.20
AREA 2	14.39	2.60
AREA 3	13.07	.95
AREA 4	14.70	2.80

TERRAZZO WORKERS & TILE SETTERS:

AREA 1	13.72	3.20
AREA 2	13.39	2.60
AREA 3	13.07	.95
AREA 4	13.70	2.80

AREA DEFINITIONS

AREA 1 - Acadia, Allen, Beauregard, Cameron, Jefferson Davis &
VERNON Parishes

AREA 2 - Assumption, East Feliciana, Evangeline, Iberia,
Iberville, Pointe Coupee, St. Helena, St. Landry, St. Mary,
Tangipahoa, Vermilion, Washington & West Feliciana Parishes

AREA 3 - Avoyelles, Bienville, Caldwell, Catahoula, Claiborne,
Concordia, De Soto, East Carroll, Franklin, Grant, Jackson,
La Salle, Lincoln, Madison, Morehouse, Natchitoches, Ouachita,
Red River, Richland, Sabine, Tensas, Union, Webster,

West Carroll & Winn Parishes

AREA 4 - Lafourche, Plaquemines, St. James & Terrebonne Parishes

BRLA0001H 05/01/1996

	Rates	Fringes
CAULKERS; CLEANERS; & POINTERS:		
AREA 1	13.90	1.95
AREA 2	13.00	1.40
AREA 3	10.40	.95
AREA 4	13.00	2.00

MARBLE, TERRAZZO & TILE FINISHERS:

AREA 1	8.25	1.95
AREA 2	8.22	1.40
AREA 3	8.40	.95
AREA 4	8.25	2.00

AREA DEFINITIONS

AREA 1 - Acadia, Allen, Beauregard, Cameron, Jefferson Davis &
VERNON ParishesAREA 2 - Assumption, East Feliciana, Evangeline, Iberia,
Iberville, Pointe Coupee, St. Helena, St. Landry, St. Mary,
Tangipahoa, Vermilion, Washington & West Feliciana ParishesAREA 3 - Avoyelles, Bienville, Caldwell, Catahoula, Claiborne,
Concordia, De Soto, East Carroll, Franklin, Grant, Jackson,
La Salle, Lincoln, Madison, Morehouse, Natchitoches, Ouachita,
Red River, Richland, Sabine, Tensas, Union, Webster,
West Carroll & Winn ParishesAREA 4 - Lafourche, Plaquemines, St. James & Terrebonne Parishes

CARP0062A 05/01/1993

	Rates	Fringes
ASSUMPTION, IBERIA (East of the Atchafalaya River), LAFOURCHE, PLAQUEMINES, ST. JAMES (South of the Mississippi River), ST. MARY (East of the Atchafalaya River), TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES:		

LATHERS	14.78	2.30
---------	-------	------

CARP0403A 07/01/1995

	Rates	Fringes
AVOYELLES, GRANT, LA SALLE, NATCHITOCHES & SABINE PARISHES:		

CARPENTERS	15.00	
MILLWRIGHTS	15.75	
PILEDRIVERMEN	15.50	

CARP0720A 06/01/1993

	Rates	Fringes
EAST FELICIANA, IBERVILLE (Excluding portion south of an East-West line from Darrow, Louisiana to the Atchafalaya River), POINTE COUPEE, ST. HELENA, ST. JAMES (North of the Mississippi River) & WEST FELICIANA PARISHES:		

MILLWRIGHTS	15.60	.16
-------------	-------	-----

CARP0764A 11/01/1994

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER & WEBSTER PARISHES:		

CARPENTERS	13.25	2.70
PILEDRIVERMEN	13.50	2.70
MILLWRIGHTS	14.00	2.70
LATHERS	13.75	2.70

CARP0953A 05/01/1996

	Rates	Fringes
ALLEN, BEAUREGARD, CAMERON (Excluding Strategic Petroleum Reserve), JEFFERSON DAVIS & VERNON (Excluding Fort Polk) PARISHES:		

CARPENTERS & PILEDRIVERMEN	13.51	1.88
----------------------------	-------	------

CAMERON (Strategic Petroleum Reserve) & VERNON (Fort Polk) PARISHES:		
---	--	--

CARPENTERS & PILEDRIVERMEN	16.10	1.88
MILLWRIGHTS	17.10	1.88

CARP1098A 05/01/1993

	Rates	Fringes
EAST FELICIANA, IBERVILLE (Excluding portion south of an East-West line from Darrow, Louisiana to the Atchafalaya River), POINTE COUPEE, ST. HELENA, ST. JAMES (North of the Mississippi		

River) & WEST FELICIANA PARISHES:

CARPENTERS	10.40	1.95
------------	-------	------

CARP1476A 06/01/1993

	Rates	Fringes
--	-------	---------

ALLEN, BEAUREGARD, CAMERON, JEFFERSON DAVIS & **VERNON** PARISHES:

MILLWRIGHTS	12.53	.07
-------------	-------	-----

CARP1811A 07/01/1993

	Rates	Fringes
--	-------	---------

CALDWELL, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MOREHOUSE,
OUACHITA, RICHLAND, TENSAS, UNION, WEST CARROLL & WINN PARISHES:

CARPENTERS	12.30	1.85
MILLWRIGHTS	13.20	1.85
PILEDRIVERMEN	12.80	1.85

CARP1897A 09/01/1993

	Rates	Fringes
--	-------	---------

ACADIA, EVANGELINE, IBERIA (West of Atchafalaya River),
ST. LANDRY, ST. MARY (West of Atchafalaya River) & VERMILION
PARISHES:

CARPENTERS & LATHERS	11.26	.60
MILLWRIGHTS	11.98	.60
PILEDRIVERMEN	12.16	.60

CARP1964A 01/01/1994

	Rates	Fringes
--	-------	---------

CATAHOULA, CONCORDIA & MADISON PARISHES:

CARPENTERS	12.50	2.10
MILLWRIGHTS	13.50	2.10
PILEDRIVERMEN	13.25	2.10

CARP9999A 02/01/1997

	Rates	Fringes
--	-------	---------

ASSUMPTION, IBERIA (East of the Atchafalaya River), IBERVILLE
(South of an East-West line from Darrow, Louisiana to the
Atchafalaya River), LAFOURCHE, PLAQUEMINES, ST. JAMES (South of

the Mississippi River), ST. MARY (East of the Atchafalaya River), TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES:

CARPENTERS	14.21	3.20
------------	-------	------

ELEC0130A 09/01/1997

	Rates	Fringes
ASSUMPTION, LAFOURCHE, PLAQUEMINES, ST. JAMES, ST. MARY (Northeast of the Atchafalaya River) & TERREBONNE PARISHES:		

ELECTRICIANS & CABLE SPLICERS	17.54	4.41
-------------------------------	-------	------

ELEC0130C 09/01/1995

	Rates	Fringes
ASSUMPTION, LAFOURCHE, PLAQUEMINES, ST. JAMES, ST. MARY (Northeast of Atchafalaya River) & TERREBONNE PARISHES:		

LINE CONSTRUCTION:

Lineman	17.54	3.16
Hole Digging Equipment; Tractor with Winch & Derrick; Line Truck with Winch & Derrick Working in Hot Lines	13.16	3.02
Pole Truck & Trailer or Pole Hauling & Setting Truck (Not in Energized Lines)	11.40	2.97
Groundman	8.77	2.89
Truck without Winch	7.89	2.87

ELEC0194A 01/01/1998

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, NATCHITOCHES (Northeast of the Red River), RED RIVER & WEBSTER PARISHES:		

ELECTRICIANS	16.90	5.98
CABLE SPLICERS	17.40	6.03

ELEC0194B 04/01/1992

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, NATCHITOCHES (East of the Red River), RED RIVER & WEBSTER PARISHES:		

LINE CONSTRUCTION:

Lineman	14.45	3.39
---------	-------	------

Operator	10.60	3.25
Groundman; Truck Driver	6.45	3.09

* ELEC0446A 09/01/1997

	Rates	Fringes
--	-------	---------

CALDWELL, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MADISON,
MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION & WEST CARROLL
PARISHES:

ELECTRICIANS	15.88	3.76
CABLE SPLICERS	16.13	3.76

* ELEC0446B 03/01/1998

	Rates	Fringes
--	-------	---------

CALDWELL, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MADISON,
MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION & WEST CARROLL
PARISHES:

LINE CONSTRUCTION:

Equipment Operator; Lineman	14.30	2.76
Cable Splicer	14.55	2.76
Groundman	10.09	2.76

ELEC0576A 06/01/1998

	Rates	Fringes
--	-------	---------

AVOYELLES, CATAHOULA, CONCORDIA, EVANGELINE, GRANT, LA SALLE,
NATCHITOCHEs (Southwest of Red River), SABINE, **VERNON** & WINN
PARISHES:

ELECTRICIANS	15.10	3.23
CABLE SPLICERS	15.60	3.25

ELEC0576C 09/01/1996

	Rates	Fringes
--	-------	---------

AVOYELLES, CATAHOULA, CONCORDIA, EVANGELINE, GRANT, LA SALLE,
NATCHITOCHEs (Southwest of Red River), SABINE, **VERNON** & WINN
PARISHES:

LINE CONSTRUCTION:

Equipment Operator; Lineman	14.65	2.96
Groundman	9.52	2.78

ELEC0861A 10/01/1997

	Rates	Fringes
--	-------	---------

ACADIA, ALLEN, BEAUREGARD, CAMERON, IBERIA, JEFFERSON DAVIS,
ST. MARY (Southwest of Atchafalaya River) & VERMILION PARISHES:

ELECTRICIANS	16.35	4.15
CABLE SPLICERS	16.85	4.17

ELEC0861C 05/01/1990

	Rates	Fringes
ACADIA, ALLEN, BEAUREGARD, CAMERON, IBERIA, JEFFERSON DAVIS, ST. MARY (Southwest of Atchafalaya River) & VERMILION PARISHES:		

LINE CONSTRUCTION:

Equipment Operator; Lineman; & Truck Driver	19.70	3.96
Cable Splicer	20.20	3.98
Groundman	17.70	3.90

ELEC0995A 12/01/1997

	Rates	Fringes
EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. LANDRY & WEST FELICIANA PARISHES:		

ELECTRICIANS:

Electrical Contracts Up to & Including 5 Million Dollars:		
Electrician	15.60	3.79
Cable Splicer	15.85	3.82

Electrical Contracts Over 5 Million
Dollars:

Electrician	18.15	4.09
Cable Splicer	18.40	4.12

ELEC0995C 12/01/1997

	Rates	Fringes
EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. LANDRY & WEST FELICIANA PARISHES:		

LINE CONSTRUCTION:

Electrical Contracts Up To & Including \$5,000,000.00:		
Lineman; Technician	15.60	3.79
Cable Splicer	15.85	3.82
Heavy Equipment Operator	11.70	3.35
Truck Driver; Groundman	7.02	2.81

Electrical Contracts Over \$5,000,000.00:

Lineman; Technician	18.15	4.09
Cable Splicer	18.40	4.12
Heavy Equipment Operator	13.61	3.57
Truck Driver; Groundman	8.17	2.94

ELEC1077A 12/01/1996

	Rates	Fringes
TANGIPAHOA & WASHINGTON PARISHES:		
ELECTRICIANS	17.00	2.66
CABLE SPLICERS	17.75	2.68

ELEV0016A 07/10/1998

	Rates	Fringes
ACADIA, ALLEN, ASSUMPTION, BEAUREGARD, CAMERON, EAST FELICIANA, EVANGELINE, IBERIA, IBERVILLE, JEFFERSON DAVIS, LAFOURCHE, PLAQUEMINES, POINTE COUPEE, ST. HELENA, ST. JAMES, ST. LANDRY, ST. MARY, TANGIPAHOA, TERREBONNE, VERMILION, WASHINGTON & WEST FELICIANA PARISHES:		

ELEVATOR MECHANICS	19.695	6.675+a+b
--------------------	--------	-----------

FOOTNOTES:

a. Seven Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; The Day after Thanksgiving; & Christmas Day

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years

ELEV0098B 12/05/1997

	Rates	Fringes
AVOYELLES, BIENVILLE, CALDWELL, CATAHOULA, CLAIBORNE, CONCORDIA, DE SOTO, EAST CARROLL, FRANKLIN, GRANT, JACKSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, NATCHITOCHEs, OUACHITA, RED RIVER, RICHLAND, SABINE, TENSAS, UNION, VERNON , WEBSTER, WEST CARROLL & WINN PARISHES:		

ELEVATOR MECHANICS	19.565	6.405+a+b
--------------------	--------	-----------

FOOTNOTES:

a. 7 Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; the day after Thanksgiving; & Christmas Day

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years.

 ENGI0406A 05/01/1993

	Rates	Fringes
EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA & WEST FELICIANA PARISHES;		
ASSUMPTION & ST. JAMES PARISHES (Northwest of a straight line drawn from the city of Berwick to the city of Lutchter);		
IBERIA PARISH (East & west of a line from the city of Berwick, north to the eastern boundary of the city of Krotz Springs);		
TANGIPAHOA & WASHINGTON PARISHES (West of a line drawn north from the city of Lutchter to the east side of the city of Hammond to the Louisiana-Mississippi border):		

POWER EQUIPMENT OPERATORS:

GROUP 1	16.11	2.50
GROUP 2	16.36	2.50
GROUP 3	16.61	2.50
GROUP 4	16.86	2.50
GROUP 5	17.11	2.50
GROUP 6	17.36	2.50
GROUP 7	15.86	2.50
GROUP 8	13.18	2.50
GROUP 9	11.61	2.50
GROUP 10	9.45	2.50
GROUP 11	10.78	2.50

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Crane 60 Tons & Over; Crane Boom 100 ft. & Over, but less than 150 ft.; & Piledriver, Leads 100 ft. & Over, but less than 150 ft.

GROUP 2 - Crane 100 Tons, up to 125 Tons; Crane Boom 150 ft. & Over, but less than 225 ft.; & Piledriver, Leads 150 ft. & Over, but less than 225 ft.

GROUP 3 - Crane 125 Tons, up to 200 Tons; Crane Boom 225 ft. & Over, but less than 300 ft.; & Piledriver, Leads 225 ft. & Over, but less than 300 ft.

GROUP 4 - Crane 200 Tons, up to 300 Tons

GROUP 5 - Crane 300 Tons

GROUP 6 - Crane Boom 300 ft. & Over; & Pildedriver 300 ft. &

Over

GROUP 7 - Crane; Backhoe; Cableway; Concrete Mixer, 16S & Up; Derrick; Dragline; Dredge; Hoist, 2 Drums; Locomotive Crane; Paving Mixer; Piledriver; Road Paver; Roller on Asphalt or Brick (5 Tons or Over); Shovel; Sideboom Cat; Bulldozer; Motor Patrol; Scraper; Hydrolift Crane; Hydrolift Truck; Yard Crane; Cherry Picker, etc.; Foundation, Boring & Reaming Machine; Cement Stabilizer; Trenching Machine; Asphalt Spreader; Traxcavator & Similar Front End Loading Equipment with Scoop or Bucket of 1 cu. yd. or more capacity; Tug Boat; Turnapull, Euclid, DW-10 & Other Similar Self-Loading Earth Moving Equipment; Concrete Pump (Not Pumpcrete); & Computer Batch Plant

GROUP 8 - A-Frame Truck; Crew Boat; Fireman; Fork Lift; Straddle Buggy; Traxcavator, Scoopmobile & Similar Front End Loading Equipment with Scoop or Bucket, Under 1 cu. yd. capacity; Locomotive; Well Point System; Unit Operator; & Hoist, 1 Drum, 4 stories & Over

GROUP 9 - Air Compressor; Asphalt Plant Engineer; Blade Grader; Distributor (Bituminous Surface); Finishing Machine (Concrete, Paving); Hoist, 1 Drum, Less than 4 stories; Concrete Mixer Under 16-S; Oiler Driver; Pump Crete; Street & Road Sweeper; Roller (Except on Asphalt or Brick); Roller, Asphalt or Brick (Under 5 Tons); Post-Hole Digger; Tractor, Bush Hog & Similar Grass or Bush Cutting Equipment; & Batch Plant

GROUP 10 - Oiler

GROUP 11 - Pump, Over 3" Suction; & Snatch Cat

ENGI0406B 11/01/1993

	Rates	Fringes
ALLEN, BEAUREGARD, CAMERON, JEFFERSON DAVIS & VERNON PARISHES:		

POWER EQUIPMENT OPERATORS:

Group 1	13.36	2.50
Group 2	9.25	2.50
Group 3	13.61	2.50
Group 4	13.86	2.50
Group 5	14.11	2.50
Group 6	14.36	2.50
Group 7	14.86	2.50
Group 8	8.59	2.50

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Crane; Derrick; Deck Winch (2); Hi-Ho & Similar Type Equipment; Three Drum (or more) Stabilizer; Pull; Concrete Mixer 1 yd. & over; Paver; Ditching or Trenching Machine (Track Type); Mechanic & Equipment Welder; Wellpoint System; Hoist, 2 Drums or more; Hoist, 1 Drum, 40 Vertical ft. or more; Scraper; Bulldozer, Rubber-tired or Track, other than Farm-type; Scoopmobile; Motor Patrol; Gradeall; Roller on Hot Mix; Asphalt Paving Machine; Front End Loader, other than Farm-type, 1 cu. yd. or over; Shovel & Backhoe & Equivalent Equipment; Piledriver; Sideboom Cat; Boom Truck; Bush Hog; Cableway; Cherry Picker; Dredge; Foundation Drill Locomotive; Motorized Street Sweeper (Self-propelled) Push Cat; & Test Pump (Internal Combustion Engine Powered)

GROUP 2 - Two Drum & Single Drum Stabilizer; Front End Loader under 1 cu. yd.; A-Frame Truck when handling Steel or Pipe; Finishing Machine (Concrete); Power Subgrader; 2 Tractors (Crawler Type); 1 Drum Hoist Under 40 Vertical Ft.; Fireperson; Concrete Spreader; Pugmill; Bituminous Distributor on Surface Treatment & Equivalent Equipment; Bull Float & Equivalent Equipment; Job Greaseman; Work Boat, not requiring licensed operators; Inboard & Outboard Motored Crew Boat; Concrete Mixer Under 1 yd.; Spray Curing Machine; Roller on Subgrade; 1 Air Compressor over 125 cu. ft.; Form Grader; Asphalt Finisher Screedman; Pump Over 4"; Scale Operator; Crusher; Concrete Jointing Machine; Concrete Saw; Tack Machine & Equivalent Equipment; Pumpcrete; Electric Elevator (Inside); Oiler Driver; Farm-type Rubber Tired Tractor with attachments, except Backhoe; Kolum Buff & Similar Equipment; Fork Lift, 10-ton capacity & Under; Batch Plant; Oiler on Crane using Air to Drive Pile; Fireperson Operating Steam Valve, Unit Operator; Mixer (1 Sack Under); Oiler-Compressor; Oiler-Driver on Motor Crane; Oiler-Fireperson; Pump (Under 3" Suction); Scale Operator, Water Blast Pump; & Welding Machine

GROUP 3 - Operator on Crane 60 to 99 Tons; Crane with Boom 100 Ft. to 149 Ft.

GROUP 4 - Operator on Crane 100 to 125 Tons; Crane with Boom 150 Ft. to 224 Ft.

GROUP 5 - Operator on Crane 126 to 200 Tons

GROUP 6 - Operator on Crane 201 to 300 Tons; Crane with Boom 225 Ft. to 299 Ft.

GROUP 7 - Operator on Crane Over 300 Tons; Crane with Boom 300 & Over

GROUP 8 - Oiler

ENGI0406C 05/11/1993

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER & WEBSTER PARISHES:		

POWER EQUIPMENT OPERATORS:

GROUP 1	10.40	2.20
GROUP 2	8.40	2.20
GROUP 3	7.30	2.20

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Asphalt Spreader; Backhoe, Track mounted, over 1/2 cu. yd.; Backhoe, Rubber-tired; Crawler Tractor, Bulldozer & Front End Loader (Over D-4 & equivalent); Cableway; Concrete Mixer, over 16-S; Crane with Lattice Boom; Crane with Hydraulic Boom; Clamshell; Derrick; Dragline; Forklift, over 10,000 lbs. cap.; Grease Serviceman; Hoist Material 2 Drums & over; Hoist, 1 Drum 6 stories or more or 60 ft.; Heavy Duty Mechanic and/or Welder; Hydraulift & Boom Truck; Motor Patrol; Piledriver; Pump Concrete (6" & Over); Road Paver; Scoopmobile; Scraper; Sideboom Cat; Shovel; Trenching & Ditching Machine, over 66" Digging Depth; & Tractorvator Winch Cat (Hoisting)

GROUP 2 - Air Compressor, over 500 CFM; Asphalt Plant; Bull Float; Crane, Hydraulic, 7 1/2 tons & less; Crawler Tractor, Bulldozer & Front End Loader (D-4 & equivalent & under); Concrete Spreader; Finish Machine; Forklift to 10,000 lbs.; Distributor (Bitum surface); Dowel Bar Machine; Elevator Operator Riding inside Cab; Rubber-Tired Tractor with all attachments (Excluding Backhoe); Fireperson; Hoist, Drum, less than 6 stories or 60 ft.; Kolum Buff Machine; Pull Cat; Pump, Concrete (under 6"); Roller; Straddle Buggy; Motorized Sweeper on Streets & Roads; Winch Truck, A-Frame; Water Pump, Gasoline or Diesel (over 6"); Unit Operator; Oiler/Driver; & Well Point Operator

GROUP 3 - Oiler

ENGI0406D 11/01/1993

	Rates	Fringes
ACADIA, AVOYELLES, CALDWELL, CATAHOULA, CONCORDIA, EAST CARROLL, EVANGELINE, FRANKLIN, GRANT, IBERIA (Excluding portion east & west of a line from the city of Berwick, north to the eastern		

boundary of the city of Krotz Springs), JACKSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, NATCHITOCHES, OUACHITA, RICHLAND, SABINE, ST. LANDRY, ST. MARY, TENSAS, UNION, VERMILION, WEST CARROLL & WINN PARISHES:

POWER EQUIPMENT OPERATORS:

GROUP 1	9.55	2.20
GROUP 2	10.58	2.20
GROUP 3	10.68	2.20
GROUP 4	11.15	2.20
GROUP 5	13.32	2.20

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Oiler

GROUP 2 - Oiler-Driver

GROUP 3 - Scaleperson

GROUP 4 - Air Compressor; Asphalt Plant; Bulldozer, D-4 & Equivalent & Under; Bullfloats; Concrete Spreader; Finishing Machines; Concrete Mixers (16-s or less); Concrete Saw; Distributors (Bituminous Surface); Dowell Bar Machine; Farm-type Tractor (With all attachments, except Backhoe); Fireperson; Fork Lifts (Other than Setting Steel, Machinery or Pipe); Hoist, 1 Drum less than 4 stories; Kolum Buff Machine; Pull Cats; Pump (3" & Over); Pump, Concrete (Under 6"); Rollers, except on Asphalt or Brick; Straddle Buggies; Sweepers on Streets & Roads (Motorized); Winch Truck, A-Frame (Other than handling Steel or Pipe)

GROUP 5 - Asphalt Spreader; Backhoe; Bulldozer, Over D-4 & Equivalent; Cableways; Concrete Mixer, Over 16-s; Cranes; Derricks; Ditching or Trenching Machines; Draglines; Fork Lifts (Setting Steel, Machinery or Pipe); Front End Loaders (Except Farm-type Tractors); Grease Service Person; Hoist, 1 Drum, 4 stories or more or 40 ft. (on Structures other than buildings); Hoist, 2 Drums & Over; Hydrolifts; Heavy Duty Mechanic; Motor Patrols; Piledrivers; Pump Concrete (6" & Over); Road Pavers; Rollers on Asphalt or Brick; Scoopmobiles; Scrapers; Sideboom Cats; Shovels; Tractor-vators; Welder; Winch Cats (Hoisting); Winch Truck, A-Frame (Handling Steel or Pipe)

ENGI0406E 11/01/1993

	Rates	Fringes
LAFORCHE, PLAQUEMINES & TERREBONNE PARISHES;		

ASSUMPTION, ST. JAMES, ST. MARY, TANGIPAHOA & WASHINGTON PARISHES
 (That portion of southeastern Louisiana bounded on the north by the state of Mississippi, on the east by the state of Mississippi & the Mississippi Sound, on the south by the Gulf of Mexico & on the west by a line drawn as follows: beginning at a point on the Louisiana-Mississippi boundary in Washington Parish, due north of the town of Hackley, then southwesterly in a straight line to a point on the east bank of the Mississippi River at the southernmost point of Lutchter ((including Gramercy in the area)), thence in a more southwesterly direction in a straight line to midstream of the Atchafalaya River at Morgan City-Berwick ((including Morgan City in this area)), thence southerly on a line following midstream of the Atchafalaya River to the Atchafalaya Bay & in a line due south to the Gulf of Mexico):

POWER EQUIPMENT OPERATORS:

GROUP 1	17.23	2.50
GROUP 2	16.73	2.50
GROUP 3	16.23	2.50
GROUP 4	15.98	2.50
GROUP 5	15.73	2.50
GROUP 6	15.48	2.50
GROUP 7	15.23	2.50
GROUP 8	12.68	2.50
GROUP 9	12.49	2.50
GROUP 10	10.79	2.50
GROUP 11	9.08	2.50

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Crane Over 400 Tons; & Crane Boom 400 Ft. & Over

GROUP 2 - Crane 300 Tons & Up to 400 Tons; Crane Boom 300 Ft. & Over, but Less Than 400 Ft.; & Tower Crane Over 30 Floors

GROUP 3 - Crane 200 Tons & Up to 300 Tons; Crane Boom 225 Ft. & Over, but Less Than 300 Ft.; & Tower Crane Boom Height 225 Ft. & Over Up to 30 Floors

GROUP 4 - Crane 125 Tons & Up to 200 Tons

GROUP 5 - Crane 100 Tons & Up to 125 Tons; Crane Boom 150 Ft. & Over, but Less Than 225 Ft.; Tower Crane Boom Height 150 Ft. & Over, but Less Than 225 Ft.

GROUP 6 - Crane 60 Tons & Above; Crane Boom 100 Ft. & Over, but Less Than 150 Ft.; Tower Crane Boom Height 100 Ft. & Over, but Less Than 150 Ft.

GROUP 7 - Heavy Equipment

GROUP 8 - Unit & wellpoint

GROUP 9 - Light Equipment

GROUP 10 - Batch Plant; & Oiler (Driver)

GROUP 11 - Oiler

IRON0058A	06/01/1998		
		Rates	Fringes
PLAQUEMINES PARISH;			
LAFOURCHE, ST. JAMES, TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES (West of a straight line drawn from the Louisiana- Mississippi border, east of the city limits of Warrenton, Louisiana, southwest through Hammond, Louisiana to the Gulf of Mexico):			

IRONWORKERS	15.85	4.55
-------------	-------	------

IRON0469A	06/01/1998		
		Rates	Fringes
MADISON PARISH (The cities of Mound & Delta & adjacent areas):			

IRONWORKERS	15.85	4.25
-------------	-------	------

IRON0591A	06/01/1998		
		Rates	Fringes
DE SOTO, RED RIVER & WEBSTER PARISHES;			

BIENVILLE, CLAIBORNE, NATCHITOCHES & WINN PARISHES (West of a
line drawn directly south from the Arkansas-Louisiana border
through the cities of Arcadia & Cloutierville);

SABINE PARISH (North of a line drawn from the Natchitoches Parish
boundary west through the city of Peason to the Texas-Louisiana
border):

IRONWORKERS	15.85	4.30
-------------	-------	------

IRON0623A	06/01/1998		
		Rates	Fringes

ASSUMPTION, AVOYELLES, EAST FELICIANA, IBERIA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. MARY & WEST FELICIANA PARISHES;

ACADIA, EVANGELINE, ST. LANDRY & VERMILION PARISHES (East of a line drawn from the meeting point of the boundaries of the Parishes of Avoyelles, Evangeline & Rapides, southeast along the western city limits of Abbeville to the Gulf of Mexico);

CATAHOULA, CONCORDIA & LA SALLE PARISHES (South of a line drawn from Natchez through the city of Cottonport to the Rapides Parish line, then west along the southern border of Rapides Parish);

LAFOURCHE, TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES (West of a straight line drawn from the Louisiana-Mississippi border, west of the city limits of Warrenton, southwest through Hammond to the Gulf of Mexico);

ST. JAMES PARISH (West of a straight line drawn from the Louisiana-Mississippi border, west of the city limits of Warrenton, southwest through Hammond to the Gulf of Mexico):

IRONWORKERS	15.85	4.30

IRON0710A 06/01/1998

	Rates	Fringes
ALLEN, BEAUREGARD, CALDWELL, CAMERON, EAST CARROLL, FRANKLIN, GRANT, JACKSON, JEFFERSON DAVIS, LINCOLN, MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION, VERNON & WEST CARROLL PARISHES;		

ACADIA, EVANGELINE, ST. LANDRY & VERMILION PARISHES (Southwest of Rapides Parish & west of a line south of the westernmost border between Rapides & Evangeline);

BIENVILLE, CLAIBORNE, NATCHITOCHES & WINN PARISHES (East of a line drawn directly south from the Arkansas-Louisiana border through the cities of Arcadia & Cloutierville);

CATAHOULA, CONCORDIA & LA SALLE PARISHES (North of a line drawn from Natchez through the city of Cottonport to the Rapides Parish line);

MADISON PARISH (Except the cities of Mound, Delta & adjacent areas):

IRONWORKERS	15.85	4.25

LABO0207A 11/01/1993

	Rates	Fringes
ALLEN, BEAUREGARD, CAMERON, JEFFERSON DAVIS & VERNON PARISHES:		

LABORERS:

VERNON Parish (Ft. Polk)	9.85	1.04
Allen, Beauregard, Cameron, Jefferson Davis & VERNON (Exclu. Ft. Polk) Parishes	7.40	1.04

LABO0229A 05/01/1993

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER, SABINE & WEBSTER PARISHES:		

LABORERS:

Jackhammer Operators	7.50	.90
All Other Laborers	6.10	.90

LABO0689A 11/01/1991

	Rates	Fringes
ASSUMPTION, LAFOURCHE, PLAQUEMINES, ST. JAMES, TANGIPAHOA, TERREBONNE & WASHINGTON PARISHES:		

LABORERS:

Assumption, Plaquemines, St. James, Tangipahoa & Washington Parishes:		
Building	10.89	1.08
Form Setters	11.09	1.08
Gunite Operators	11.14	1.08
Lafourche & Terrebonne Parishes:		
Building	10.57	1.08
Jackhammers	10.72	1.08

LABO0762A 11/01/1993

	Rates	Fringes
ACADIA, AVOYELLES, EVANGELINE, GRANT, IBERIA, LA SALLE, NATCHITOCHEs, ST. LANDRY, ST. MARY, VERMILION & WINN PARISHES:		

LABORERS:

GROUP 1	8.92	.80
GROUP 2	9.12	.80

LABORER CLASSIFICATIONS

GROUP 1 - Building; Rotary Drill; & Foundation Drill Crewmen

GROUP 2 - Mason Mixer; Plaster Mixer; Mechanical Tool Operator (Jackhammer, Vibrator, Tamper, Chipping Gun, Soil Tiller) & Burner on Demolition; Sandblaster; Laying Concrete Pipe, Clay Pipe, Plastic Pipe, Asbestos Cement Pipe, Casing Pipe & Corrugated Metal Pipe, as Sewer Pipe & Underground Tile (Caulkers, Joint Wipers, Hot Pot & Pipe Layers); Gas & Oil Pipeline Laborer; Wrapper & Doper

LABO0831A 11/01/1993

	Rates	Fringes
CALDWELL, CATAHOULA, CONCORDIA, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MADISON, MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION & WEST CARROLL PARISHES:		

LABORERS:

GROUP 1	8.45	.80
GROUP 2	8.60	.80
GROUP 3	8.75	.80

LABORER CLASSIFICATIONS

GROUP 1 - General; Tender (Brickmason, Stonemason, Cement Mason, Carpenter & Plasterer); Stripping & Dismantling; Concrete Form Work; Loading, Unloading, Carrying & Handling Steel & Steel Mesh; Assisting to the Setting of Cut Stone, Granite or Artificial Stone; Building Scaffold; & Shoring

GROUP 2 - Mechanical Tool Operator (Air, Electric, Motor, Engine, Etc.); Sewer Pipelayer; Mortar Mixer (Hand or Machine); Gunnite Operator; Tile, Terrazzo & Marble Setter Finishers

GROUP 3 - Pipe Doper & Burner

LABO1177A 05/01/1993

	Rates	Fringes
EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA & WEST FELICIANA PARISHES:		

LABORERS:

GROUP 1	9.50	1.05
GROUP 2	9.60	1.05
GROUP 3	9.65	1.05
GROUP 4	10.23	1.05
GROUP 5	9.98	1.05
GROUP 6	9.90	1.05

GROUP 7

7.21

1.05

LABORER CLASSIFICATIONS

GROUP 1 - Building & General; Carpenter Tender; Scaffold Building; Handling & Conveying Materials; Handling Steel Pans; Tank Scalers; Mixing & Pouring Concrete; & Deck Hands

GROUP 2 - Scaler Using Boatswain Chair, Safety Belt or Power Tool; Power Tool Operator (Hammer Man, Tamper Man, Concrete Chipper or Cutter, Vibrator, Power Buggy, & Chain Saw Operator); Pipe & Sewer Man (Laying of all types of Pipe, Wiping Joints, Cleaning & Wrapping Pipe, Caulker & Grade Carrier)

GROUP 3 - Mason Tender; Plasterer Tender; Cement Mix (Wet or Dry); Hod Carrier; Mortar Mixer & Cement Mixer (Wet or Dry); Hot Pan Man; Concrete Cutter & Puddler; Asphalt Worker; Well Drilling Tender; Guniting Worker & Pot Tender (Sandblasting)

GROUP 4 - Blaster-Powder Man

GROUP 5 - Blaster-Powder Man Tender

GROUP 6 - Form Setter & Liner, Steel; Nozzle Operator (Guniting or Sandblasting)

GROUP 7 - Cleanup

PAIN0728B 05/01/1997

	Rates	Fringes
ACADIA (Part), ASSUMPTION (North of Hwy #22), CONCORDIA, EAST FELICIANA, IBERIA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. LANDRY (Southern half), ST. MARY (Excluding Morgan City Area), TANGIPAHOA (West of Hwy #51), VERMILION & WEST FELICIANA PARISHES:		

PAINTERS:

Drywall; Taping; Floating;

Sheetrock; & Texture

12.90

1.45

Brush; Sandblasting; Spray & Steel

14.65

1.45

PAIN1244A 04/01/1997

	Rates	Fringes
ASSUMPTION (South of Grand Bayou), LAFOURCHE, PLAQUEMINES, ST. JAMES, ST. MARY (Morgan City Area), TERREBONNE & WASHINGTON PARISHES:		

PAINTERS:

Power Plants, Refineries, Cracking Plants, Tank Farms, Chemical Processing Plants, Missile Plants, Smoke Stacks & Cat Crackers	13.85	2.85
---	-------	------

All Other Commercial Building Work	12.39	2.85
------------------------------------	-------	------

* PAIN1244E 04/01/1998

	Rates	Fringes
BIENVILLE, CALDWELL, CATAHOULA, CLAIBORNE, DE SOTO, EAST CARROLL, FRANKLIN, GRANT, JACKSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, NATCHITOCHES, OUACHITA, RED RIVER, RICHLAND, SABINE, TENSAS, UNION, VERNON , WEBSTER, WEST CARROLL & WINN PARISHES:		

PAINTERS	10.25	1.72
----------	-------	------

PAIN1244F 01/01/1998

	Rates	Fringes
ACADIA (Part), ALLEN, BEAUREGARD, CAMERON, EVANGELINE (Part) & JEFFERSON DAVIS PARISHES:		

PAINTERS	12.45	2.55
----------	-------	------

PAIN1244N 09/01/1997

	Rates	Fringes
GLAZIERS	13.80	2.74

LA980005 - 1

PLAS0483A 05/01/1993

	Rates	Fringes
ASSUMPTION, EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. JAMES, TANGIPAHOA & WEST FELICIANA PARISHES:		

PLASTERERS	15.20	
------------	-------	--

PLAS0487A 04/01/1994

	Rates	Fringes
ALLEN, AVOYELLES, BEAUREGARD, CAMERON, CATAHOULA, CONCORDIA, EVANGELINE, GRANT, JEFFERSON DAVIS, LA SALLE & VERNON PARISHES:		

CEMENT MASONS	13.42	
---------------	-------	--

PLASTERERS	14.20	
------------	-------	--

PLAS0567A 07/01/1997

	Rates	Fringes
LAFOURCHE, PLAQUEMINES & TERREBONNE PARISHES:		

CEMENT MASONS (Building Foundations only)	13.38	1.68
---	-------	------

PLAS0685A 10/01/1993

	Rates	Fringes
ACADIA, IBERIA, ST. LANDRY, ST. MARY & VERMILION PARISHES:		

CEMENT MASONS	11.00	2.20
---------------	-------	------

PLAS0685C 07/01/1993

	Rates	Fringes
ACADIA, IBERIA, ST. LANDRY, ST. MARY & VERMILION PARISHES:		

PLASTERERS	14.25	.01
------------	-------	-----

PLAS0812A 05/01/1993

	Rates	Fringes
ASSUMPTION, EAST FELICIANA, IBERVILLE, POINT COUPEE, ST. HELENA, ST. JAMES, TANGIPAHOA & WEST FELICIANA PARISHES:		

CEMENT MASONS	13.55	
---------------	-------	--

PLAS0903A 05/01/1993

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER & WEBSTER PARISHES:		

CEMENT MASONS	9.65	.85
---------------	------	-----

PLUM0060A 09/01/1997

	Rates	Fringes
LAFOURCHE, PLAQUEMINES, ST. JAMES (Eastern part), TERREBONNE & WASHINGTON PARISHES:		

PLUMBERS	16.80	3.69
----------	-------	------

PLUM0106A 11/01/1997

	Rates	Fringes
ACADIA, ALLEN, BEAUREGARD, CAMERON, IBERIA (West of Hwy 31 & Hwy 83), JEFFERSON DAVIS, ST. LANDRY & VERMILION PARISHES:		

PLUMBERS & STEAMFITTERS	18.25	3.49
-------------------------	-------	------

PLUM0141A 02/01/1998

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER, SABINE & WEBSTER PARISHES;		

NATCHITOCHES & **VERNON** PARISHES (Northwest of a line drawn from Natchitoches to Anacoco through Bellwood & north of Hwy #111 between Anacoco & Haddens);

WINN PARISH (West of a line drawn from Winnfield to the junction of the Parish boundaries of Winn, Bienville & Jackson):

PLUMBERS & PIPEFITTERS	16.35	4.35
------------------------	-------	------

PLUM0198A 01/01/1998

	Rates	Fringes
ASSUMPTION, EAST FELICIANA, IBERIA (East of Hwy 31 & Hwy 83), IBERVILLE, POINTE COUPEE, ST. HELENA, ST. JAMES (Western part), ST. MARY, TANGIPAHOA & WEST FELICIANA PARISHES:		

PLUMBERS & STEAMFITTERS	16.06	3.31
-------------------------	-------	------

PLUM0247A 05/01/1998

	Rates	Fringes
AVOYELLES, CATAHOULA, CONCORDIA, EVANGELINE, GRANT, LA SALLE, NATCHITOCHES (City limits of Natchitoches, Hwy #6 to Hagewood & Hwy #117), & VERNON (Ft. Polk & Hwy #117, south to Leesville) PARISHES:		

PLUMBERS & STEAMFITTERS:

Work where contract price of the
mechanical work is less than
\$3,000,000.00

15.25	3.05
-------	------

Work where contract price of the
mechanical work is more than
\$3,000,000.00

16.55	4.05
-------	------

PLUM0659A 07/01/1996

	Rates	Fringes
CALDWELL, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MADISON, MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION, WEST CARROLL & WINN (North of Hwy #84) PARISHES:		

PIPEFITTERS & STEAMFITTERS	15.50	3.20
PLUMBERS	14.10	3.20

ROOF0059A 07/01/1993

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, NATCHITOCHEs, RED RIVER, SABINE & WEBSTER PARISHES:		

ROOFERS:

Roofers	9.75	.24
Kettlemen	6.50	.24

ROOF0076A 05/01/1995

	Rates	Fringes
ALLEN, BEAUREGARD, CAMERON, EVANGELINE, JEFFERSON DAVIS, VERMILION & VERNON PARISHES:		

ROOFERS	12.90	.20
---------	-------	-----

ROOF0141A 05/01/1996

	Rates	Fringes
ASSUMPTION, LAFOURCHE, PLAQUEMINES, ST. JAMES, ST. MARY, TERREBONNE & WASHINGTON PARISHES:		

ROOFERS	12.00	1.90
---------	-------	------

ROOF0191A 01/01/1993

	Rates	Fringes
CALDWELL, CATAHOULA, CONCORDIA, EAST CARROLL, FRANKLIN, GRANT, JACKSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, OUACHITA, RICHLAND, TENSAS, UNION, WEST CARROLL & WINN PARISHES:		

ROOFERS:

Roofers	12.30	.30
Kettlemen	9.40	.30

ROOF0317A 10/01/1997

	Rates	Fringes
ACADIA, AVOYELLES, EAST FELICIANA, IBERIA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. LANDRY, TANGIPAHOA & WEST FELICIANA PARISHES:		

ROOFERS	13.50	2.24
---------	-------	------

SFLA0669A 04/01/1998

	Rates	Fringes
SPRINKLER FITTERS	18.41	5.85

SHEE0011A 05/01/1998

	Rates	Fringes
LAFOURCHE, PLAQUEMINES, ST. JAMES, TERREBONNE & WASHINGTON PARISHES:		

SHEET METAL WORKERS	16.87	5.25
---------------------	-------	------

SHEE0021A 08/01/1997

	Rates	Fringes
ACADIA, ALLEN, ASSUMPTION, BEAUREGARD, CAMERON, EAST FELICIANA, EVANGELINE, IBERIA, IBERVILLE, JEFFERSON DAVIS, POINTE COUPEE, ST. HELENA, ST. LANDRY, ST. MARY, TANGIPAHOA, VERMILION & WEST FELICIANA PARISHES:		

SHEET METAL WORKERS	17.06	3.78
---------------------	-------	------

SHEE0361A 01/01/1998

	Rates	Fringes
AVOYELLES, BIENVILLE, CALDWELL, CATAHOULA, CLAIBORNE, CONCORDIA, DE SOTO, EAST CARROLL, FRANKLIN, GRANT, JACKSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, NATCHITOCHEs, OUACHITA, RED RIVER, RICHLAND, SABINE, TENSAS, UNION, VERNON , WEBSTER, WEST CARROLL & WINN PARISHES:		

SHEET METAL WORKERS	16.92	3.67
---------------------	-------	------

TEAM0005A 10/04/1993

	Rates	Fringes
ACADIA, ASSUMPTION, EAST FELICIANA, EVANGELINE, IBERIA, IBERVILLE, POINTE COUPEE, ST. HELENA, ST. JAMES, ST. LANDRY, ST. MARY, TANGIPAHOA, VERMILION, WASHINGTON & WEST FELICIANA PARISHES:		

TRUCK DRIVERS:

Pickups	10.98
---------	-------

Fuel	11.35
------	-------

Over 1 Ton, Up to, but not Including 3 Tons	11.23
--	-------

3 Tons, Up to, but not Including 5 Tons	11.35
--	-------

5 Tons & Over, Including, but not limited to Winch, Dempsey, Dumpster, Lowboy, Semi-Trailer, Euclid, Tournapull & Similar Equipment Used for Transporting	
---	--

Material	11.52
Larger Trucks (Carry Capacity of rear Axles 50,000 lbs. & Over	11.65
Winch with "A" Frame when used for transporting material	11.48

TEAM0270A 11/01/1992

	Rates	Fringes
LAFOURCHE, PLAQUEMINES & TERREBONNE PARISHES:		

TRUCK DRIVERS:

Up to 1 1/2 Tons	12.59
1 1/2 Tons up to, but not including 3 Tons	12.70
3 Tons up to, but not including 5 Tons	12.75
5 Tons & Over	13.01

TEAM0568A 11/01/1993

	Rates	Fringes
BIENVILLE, CLAIBORNE, DE SOTO, RED RIVER & WEBSTER PARISHES:		

TRUCK DRIVERS:

GROUP 1	9.87
GROUP 2	9.95
GROUP 3	10.20
GROUP 4	10.35
GROUP 5	10.50
GROUP 6	10.70
GROUP 7	11.05

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Pickup; Spotter & Dumper of Dirt, Gravel, Etc.

GROUP 2 - Stake Body; Flat Bed

GROUP 3 - Single Axle Dump & Water Truck; Transit Mix, Up to
& Including 3 yds.

GROUP 4 - Tandem Axle Dump, Batch & Water Truck over 3 tons;
Pickup with Trailer

GROUP 5 - Mississippi Wagon, Float, Tractor Trailer; Rubber
Tired Tractor & Wobble Wheels

GROUP 6 - Euclid; Lowboy; Dempsey Dumpster; Koehring Dump;
5 Axle Truck; Transit Mix Over 3 yds.

GROUP 7 - Fork Lift

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator

(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

LAKE CHARLES, LA, ECO AREA

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (APR 1984)
(FAR 52.222-23D) (DEVIATION)**

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation _____ for each trade	Goals for female participation _____ for each trade
17.8%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs Office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

LAKE CHARLES, LA, ECO AREA

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance Programs, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the--

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is:

the Louisiana Parishes of Allen, Beauregard, Cameron, Jefferson Davis, and Vernon.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 07412 - MANUFACTURED WALL PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Metal wall panels with exposed fasteners.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide manufactured wall panel assemblies complying with performance requirements indicated and capable of withstanding structural movement, thermally induced movement, and exposure to weather without failure or infiltration of water into the building interior.
- B. Water Penetration: Provide manufactured wall panel assemblies with no water penetration as defined in the test method when tested according to ASTM E 331 at a minimum differential pressure of 20 percent of inward acting, wind-load design pressure of not less than 6.24 lb/sq. ft. (300 Pa) and not more than 12.0 lb/sq. ft. (575 Pa).
- C. Structural Performance: Provide manufactured wall panel assemblies capable of withstanding design wind loads indicated under in-service conditions with deflection no greater than the following, based on testing manufacturer's standard units according to ASTM E 330 by a qualified independent testing and inspecting agency.
 - 1. Maximum Deflection: 1/140 of the span.

1.4 SUBMITTALS

- A. Product Data: Include manufacturer's product specifications, standard details, certified product test results, and general recommendations, as applicable to materials and finishes for each component and for total panel assemblies.
- B. Shop Drawings: Show layouts of panels, details of corner conditions, joints, panel profiles, supports, anchorages, trim, flashings, closures, and special details. Distinguish between factory- and field-assembled work.
 - 1. For installed products indicated to comply with certain design loadings, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples for Initial Selection: Manufacturer's color charts or chips showing the full range of colors, textures, and patterns available for wall panels with factory-applied finishes.
- D. Samples for Verification: Provide sample panels 12 inches (300 mm) long by actual panel width, in the profile, style, color, and texture indicated. Include clips, caps, battens, fasteners, closures, and other exposed panel accessories.
- E. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- F. Product Test Reports: Indicate compliance of manufactured wall panel assemblies and materials with performance and other requirements based on comprehensive testing of current products.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed metal wall panel projects similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver panels and other components so they will not be damaged or deformed. Package panels for protection against damage during transportation or handling.
- B. Handling: Exercise care in unloading, storing, and erecting wall panels to prevent bending, warping, twisting, and surface damage.
- C. Stack materials on platforms or pallets, covered with tarpaulins or other suitable weathertight and ventilated covering. Store panels to ensure dryness. Do not store panels in contact with other materials that might cause staining, denting, or other surface damage.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify location of structural members and openings in substrates by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, either establish opening dimensions and proceed with fabricating wall panels without field measurements or allow for trimming panel units. Coordinate wall construction to ensure actual locations of structural members and to ensure opening dimensions correspond to established dimensions.

1.8 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive the Government of other rights the Government may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Finish Warranty: Submit a written warranty, signed by manufacturer, covering failure of the factory-applied exterior finish on metal wall panels within the specified warranty period and agreeing to repair finish or replace wall panels that show evidence

of finish deterioration. Deterioration of finish includes, but is not limited to, color fade, chalking, cracking, peeling, and loss of film integrity.

- C. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 METALS AND FINISHES

- A. Metallic-Coated Steel Sheet Prepainted with Coil Coating: Steel sheet metallic coated by the hot-dip process and prepainted by the coil-coating process to comply with ASTM A 755 (ASTM A 755M) and the following requirements:

AM0001

1. Galvanized or galvalume - coated steel sheet:
ASTM A 463, T1-40 (ASTM A 463M, T1-120)
ASTM A 924, ASTM A 653 coating.
2. Surface: Smooth, flat, mill finish.
3. Exposed Finish for Exterior Panels: Apply the following coating in thickness indicated. Furnish appropriate air-drying spray finish in matching color for touchup.
 - a. Fluoropolymer 2-Coat Coating System:
Manufacturer's standard 2-coat, thermocured system composed of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight with a total minimum dry film thickness of 0.9 mil (0.023 mm) and 30 percent reflective gloss when tested according to ASTM D 523.
 - 1) Durability: Provide coating field tested under normal range of weather conditions for a minimum of 20 years without significant peel, blister, flake, chip, crack, or check in finish; without chalking in excess of a chalk rating of 8 according to ASTM D 4214; and without fading in excess of 5 Hunter units.

- 2) Color: As selected by Contracting Officer from manufacturer's full range of colors.

2.2 WALL PANEL ASSEMBLIES

- A. Exterior Wall Panels: Fabricate panel face sheets to the profile or configuration indicated; and of the material, finish, and thickness indicated. Design joints between panels to form weathertight seals.
 1. Steel Face Sheet: 0.0239-inch- (24 gauge)(0.7-mm-) thick, metallic-coated steel sheet with organic coating finish, unless otherwise indicated.
 2. Profile: Standard lap seam "R" panel profile.

2.3 BLANKET WALL INSULATION

- A. Metal Building Insulation: Glass-fiber-blanket insulation, complying with ASTM C 991, Type II, of 0.5-lb/cu. ft. (8-kg/cu. m) density, thickness as indicated, with a flame-spread rating of 25 or less, and 2-inch- (50-mm-) wide, continuous, vapor-tight edge tabs.
 1. Facing: Vinyl-reinforced polyester.

2.4 MISCELLANEOUS MATERIALS

- A. Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads.
 1. Use stainless-steel fasteners for exterior applications and galvanized steel fasteners for interior applications.
 2. Provide exposed fasteners with heads matching color of panel by means of plastic caps or factory-applied coating.
 3. Provide metal-backed neoprene washers under heads of exposed fasteners located on weather side of panels.
- B. Accessories: Unless otherwise specified, provide components required for a complete wall panel assembly including trim, copings, fasciae, mullions, sills, corner units, clips, seam covers, flashings, louvers,

sealants, gaskets, fillers, closure strips, and similar items. Match materials and finishes of panels.

1. Closure Strips: Closed-cell, self-extinguishing, expanded, cellular, rubber or cross-linked, polyolefin-foam flexible closure strips. Cut or premold to match configuration of panels. Provide closure strips where indicated or necessary to ensure weathertight construction.
 2. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.
 3. Joint Sealant: One-part elastomeric polyurethane, polysulfide, or silicone-rubber sealant as recommended by panel manufacturer.
- C. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil (0.4-mm) dry film thickness per coat, unless otherwise indicated. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.5 FABRICATION

- A. General: Fabricate and finish panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. Apply bituminous coating or other permanent separation materials on concealed panel surfaces where panels would otherwise be in direct contact with substrate materials that are noncompatible or could result in corrosion or deterioration of either materials or finishes.
- C. Fabricate panel joints with captive gaskets or separator strips that provide a tight seal and prevent metal-to-metal contact, in a manner that will minimize noise from movements within panel assembly.

2.6 SECONDARY FRAMING

- A. Panel Supports and Anchorage: Provide girts, furring channels, angles, plates, bracing, and other secondary framing members.
 - 1. Girts: C- or Z-shaped sections fabricated from 0.0598-inch- (1.5-mm-) thick, shop-painted, roll-formed steel.
 - 2. Flange and Sag Bracing: 1-5/8-by-1-5/8-inch (41-by-41-mm) angles, fabricated from 0.0598-inch- (1.5-mm-) thick, shop-painted, roll-formed steel.
 - 3. Base or Sill Angles: Fabricate from 0.079-inch- (2.0-mm-) thick, cold-formed, galvanized steel sections.
 - 4. Secondary structural members, except columns and beams, shall be manufacturer's standard sections fabricated from 0.079-inch- (2.0-mm-) thick, cold-formed galvanized steel.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements indicated for conditions affecting performance of metal panel walls.
 - 1. Panel Supports and Anchorage: Examine wall framing to verify that girts, angles, and other secondary structural panel support members and anchorage have been installed to meet requirements of panel manufacturer.
 - 2. Do not proceed with wall panel installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Coordinate metal wall panels with rain drainage work; flashing; trim; and construction of soffits, roofing, parapets, walls, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.
- B. Promptly remove protective film, if any, from exposed surfaces of metal panels. Strip with care to avoid damage to finish.
- C. Secondary Structural Supports: Install girts, angles, and other secondary structural panel support members

and anchorage according to the Light Gage Structural Institute's "Guide Specifications," Section 07410, "Manufactured Roof and Wall Panels."

3.3 PANEL INSTALLATION

- A. General: Comply with panel manufacturer's written instructions and recommendations for installation, as applicable to project conditions and supporting substrates. Anchor panels and other components of the Work securely in place, with provisions for thermal and structural movement.
 - 1. Field cutting exterior panels by torch is not permitted.
 - 2. Install panels with concealed fasteners.
 - 3. Install panels with exposed exterior and interior fasteners, prefinished to match panel finishes.
 - 4. Locate and space exposed fasteners in true vertical and horizontal alignment. Use proper tools to obtain controlled, uniform compression for positive seal without rupture of neoprene washer.
- B. Accessories: Install components required for a complete wall panel assembly including trim, copings, fasciae, mullions, sills, corner units, clips, seam covers, flashings, louvers, sealants, gaskets, fillers, closure strips, and similar items.
- C. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of wall panel assemblies. Provide types of gaskets, fillers, and sealants indicated or, if not otherwise indicated, types recommended by panel manufacturer.
 - 1. Install weatherseal to prevent air and moisture penetration. Flash and seal panels at ends and intersections with other materials with rubber, neoprene, or other closures to exclude weather.
 - 2. Seal panel end laps with a bead of tape or sealant, full width of panel. Seal side joints where recommended by panel manufacturer.
 - 3. Prepare joints and apply sealants to comply with requirements of Division 7 Section "Joint Sealants."

- D. Wall Panels: Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as necessary for waterproofing. Handle and apply sealant and back-up according to sealant manufacturer's written instructions.
 - 1. Align bottom of wall panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
 - 2. Install screw fasteners with power tools having controlled torque adjusted to compress neoprene washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
 - 3. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.
- E. Separate dissimilar metals by painting each metal surface in area of contact with a bituminous coating or by other permanent separation as recommended by manufacturers of dissimilar metals.
- F. Coat back side of metal panels with bituminous coating where it will contact wood, ferrous metal, or cementitious construction.
- G. Installation Tolerances: Shim and align panel units within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on level, plumb, and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.4 CLEANING AND PROTECTING

- A. Damaged Units: Replace panels and other components of the Work that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.
- B. Cleaning: Remove temporary protective coverings and strippable films, if any, as soon as each panel is installed. On completion of panel installation, clean finished surfaces as recommended by panel manufacturer and maintain in a clean condition during construction.

END OF SECTION 07412

SECTION 07416

STRUCTURAL STANDING SEAM METAL ROOF (SSSMR) SYSTEM

07/95

PART

1 - GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALUMINUM ASSOCIATION (AA)

- \-AA-01-\ (1993) Aluminum Standards and Data
- \-AA SAS-30-\ (1986) Aluminum Construction Manual Series -
Section 1 Specifications for Aluminum
Structures

AMERICAN IRON AND STEEL INSTITUTE (AISI)

- \-AISI SG-673-\ (1986; Addenda 1989) Cold-Formed Steel Design
Manual

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- \-ASTM A 463-\ (1994) Steel Sheet, Aluminum-Coated, by the
Hot-Dip Process
- \-ASTM A 653-\ (1994) Steel Sheet, Zinc-Coated (Galvanized)
or Zinc-Iron Alloy-Coated (Galvannealed) by
the Hot-Dip Process
- \-ASTM A 792-\ (1993a) Steel Sheet, 55% Aluminum-Zinc
Alloy-Coated by the Hot-Dip Process, General
Requirements
- \-ASTM A 924-\ (1994) General Requirements for Steel Sheet,
Metallic-Coated by the Hot-Dip Process
- \-ASTM B 117-\ (1994) Operating Salt Spray (Fog) Testing
Apparatus
- \-ASTM C 518-\ (1991) Steady-State Heat Flux Measurements
and Thermal Transmission Properties by Means
of the Heat Flow Meter Apparatus
- \-ASTM C 1289-\ (1995) Faced Rigid Cellular Polyisocyanurate
Thermal Insulation Board
- \-ASTM D 522-\ (1993a) Mandrel Bend Test of Attached Organic
Coatings

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0054

\-ASTM D 523-\ (1989; R 1993) Specular Gloss

\-ASTM D 714-\ (1987; R 1994) Evaluating Degree of Blistering of Paints

\-ASTM D 968-\ (1993) Abrasion Resistance of Organic Coatings by Falling Abrasive

\-ASTM D 1308-\ (1987; R 1993) Effect of Household Chemicals on Clear and Pigmented Organic Finishes

\-ASTM D 1654-\ (1992) Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

\-ASTM D 2244-\ (1993) Calculation of Color Differences from Instrumentally Measured Color Coordinates

\-ASTM D 2247-\ (1994) Testing Water Resistance of Coatings in 100% Relative Humidity

\-ASTM D 2794-\ (1993) Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

\-ASTM D 3359-\ (1995) Measuring Adhesion by Tape Test

\-ASTM D 4214-\ (1989) Evaluating the Degree of Chalking of Exterior Paint Films

\-ASTM E 84-\ (1994a) Surface Burning Characteristics of Building Materials

\-ASTM E 1592-\ (1994) Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference

\-ASTM G 23-\ (1995) Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

\-ASCE 7-\ (1993) Minimum Design Loads for Buildings and Other Structures

METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA)

\-MBMA-01-\ (1986; Errata; Supple 1990) Low Rise Building Systems Manual

UNDERWRITERS LABORATORIES (UL)

UL 01 (1995 AND 1995 Supplement) Roofing Materials and Systems Directory.

UL 580 (1988, Rev. thru Dec. 1998) Tests for uplift Resistance of Roof assemblies.

1.2 GENERAL REQUIREMENTS

The Contractor shall furnish a manufacturer's standard product which satisfies all requirements contained herein and has been verified by load testing and independent design analyses to meet the specified design requirements.

1.2.1 Manufacturer

The SSSMR system shall be the product of a recognized manufacturer who has been in the practice of manufacturing SSSMR systems for a period of not less than 3 years and has been involved in at least five projects similar in size and complexity to this project.

1.2.1.1 Manufacturer's Representative

A representative of the SSMRS manufacturer, who is familiar with the design of the roof system supplied and experienced in the erection of roof systems similar in size to the one required under this contract, shall be present at the job site during installation of the SSMRS to assure that the roof system meets the specified requirements. The manufacturer's representative shall be either an employee of an independent installer that is certified by the SSMRS manufacturer to have two years of experience installing similar roof system.

1.2.2 Installer

The installer shall be certified by the SSSMR system manufacturer to have experience in installing at least three projects that are of comparable size, scope and complexity as this project for the particular roof system furnished. The installer may be either employed by the manufacturer or be an independent installer.

1.3 DESIGN REQUIREMENTS

The design of the SSSMR system shall be provided by the Contractor as a complete system. Members and connections not indicated on the drawings shall be designed by the Contractor. Roof panels, components, transitions, accessories, and assemblies shall be supplied by the same manufacturer.

1.3.1 Design Criteria

Design criteria shall be in accordance with \-ASCE 7-95-\ unless otherwise specified.

1.3.2 Dead Loads

The dead load shall be the weight of the SSSMR system. Collateral loads such as mechanical and electrical systems shall not be attached to the panels.

1.3.3 Live Loads

1.3.3.1 Concentrated Loads

The panels and concealed anchor clips shall be capable of supporting a 300 pound temporary concentrated load at the panel midspan in the installed condition. The load shall be applied over the entire panel width. The panels shall support this concentrated load without displaying permanent distortions that would affect the weathertightness of the SSSMR system.

1.3.3.2 Uniform Loads

The panels and concealed anchor clips shall be capable of supporting a minimum uniform live load of 20 psf.

1.3.4 Wind Loads

The design wind uplift pressure for the roof system shall be computed and applied using a basic speed of 90mph, an importance factor of 1.0 and an exposure factor of C. The design uplift force for each connection assembly shall be that pressure given for the area under consideration, multiplied by the tributary load area of the connection assembly. The safety factor listed below shall be applied to the design force and compared against the ultimate capacity. Prying shall be considered when figuring fastener design loads.

- a. Single fastener in each connection.....3.0
- b. Two or more fasteners in each connection...2.25

1.3.5 Thermal Loads

Roof panels shall be free to move in response to the expansion and contraction forces resulting from a total temperature range of 120 degrees F during the life of the structure.

1.3.6 Framing Members Supporting the SSSMR System

Any additions/revisions to framing members supporting the SSSMR system to accommodate the manufacturer/fabricator's design shall be the Contractor's responsibility and shall be submitted for review and approval. New or revised framing members and their connections shall be designed in accordance with. Maximum deflection under applied live load, snow, or wind load shall not exceed 1/180 of the span length.

1.3.7 Roof Panels

Steel panels shall be designed in accordance with \-AISI SG-673-\ . The calculated panel deflection under applied live load, snow, or wind load shall not exceed 1/180 times the span length. Deflections shall be based on panels being continuous across three or more supports. Deflection shall be calculated and measured along the major ribs of the panels.

1.3.8 Accessories and Their Fasteners

Accessories and their fasteners shall be capable of resisting the specified design wind uplift forces and shall allow for thermal movement of the roof panel system. Exposed fasteners shall not restrict free movement of the roof panel system resulting from thermal forces. There shall be a minimum of two fasteners per clip. Single fasteners with a minimum diameter of 3/8 inch will be allowed when the supporting structural members are prepunched or predrilled.

1.4 PERFORMANCE REQUIREMENTS

The uplift resistance of the SSMR shall be established as indicated in the STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SSMRS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE at the end of this Section. The SSMRS design shall be adequate for uplift if the established allowable pressure from testing causes no failure as defined in the STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SSMRS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE. Full scale testing is required to verify the adequacy of the SSMRS system. Once a SSMRS system of a manufacturer is found to be adequate for a specific loading condition, that certification may be used for future projects, as long as no changes are made in the system components.

1.5 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data\

Design Analysis\; *GA*\.

Design analysis signed by a Registered Professional Engineer, prior to beginning of manufacture. The design analysis shall include a list of the design loads, and complete calculations for the support system, roofing system and its components. The design analysis shall include, but not be limited to, the following wind and thermal information:

a. Wind force of various parts of the roof. Both positive and negative pressures shall be calculated with the controlling pressure summarized

b. Thermal movements that will result from the specified temperature range.

The calculations shall be accompanied by details from the manufacturer that demonstrate how installed concealed anchor clips and other roof system devices will accommodate the required thermal movement.

SD-04 Drawings\

Structural Standing Seam Metal Roof System\; *FIO*\.

Contractor's drawings and specifications; and erection drawings; shop coating and finishing specifications; and other data as necessary to

clearly describe design, materials, sizes, layouts, standing seam configuration, construction details, provisions for thermal movement, line of panel fixity, fastener sizes and spacings, sealant(s) and erection procedures. Drawings shall reflect the intent of the architectural detailing using the manufacturer's proprietary products and fabricated items as required.

SD-08 Statements\

Qualifications\; *FIO*\.

Qualifications of the manufacturer, installer and field representative.

SD-09 Reports\

Test Report for Uplift Resistance of the SSSMR\; *GA*\.

SSSMR systems previously tested and approved by the Corps of Engineer's STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SSMRS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE are still valid. SSSMR systems not previously tested by the Corps of Engineer's test shall be tested in accordance with \-ASTM E 1592-\ . SSSMR systems tested and certified shall also meet the additional specified requirements of this Section. To verify that the SSSMR system tested is the same as that proposed for this project, the report shall include the following information:

- a. Details of the SSSMR system showing the roof panel cross-section with dimensions and thickness.
- b. Details of the anchor clip, dimensions, and thickness.
- c. Type of fasteners, size, and the number required for each connection.
- d. Purlins/subpurlins size and spacing used in the test.
- e. Description of the seaming operation including equipment used.
- f. Maximum allowable uplift pressures. These pressures are determined from the ultimate load divided by a factor of safety equal to 1.65.
- g. Any additional information required to identify the SSSMR system tested.
- h. Signature and seal of an independent registered engineer who witnessed the test.

SD-13 Certificates\

Structural Standing Seam Metal Roof System\; *FIO*\.

- a. Certification that the actual thickness of uncoated sheets used in SSSMRs components including roofing panels, subpurlins, and concealed anchor clips comply with specified requirements.
- b. Certification that materials used in the installation are mill certified.

c. Previous certification of SSSMR system tested under the Corps of Engineers' Standard Test Method in lieu of \-ASTM E 1592-\ testing.

d. Certification that the sheets to be furnished are produced under a continuing quality control program and that a representative sample consisting of not less than three pieces has been tested and has met the quality standards specified for factory color finish.

Insulation\; *GA*\.

Certificate attesting that the polyurethane or polyisocyanurate insulation furnished for the project contains recovered material, and showing an estimated percent of such recovered material.

Warranty\; *GA*\.

At the completion of the project, furnish a signed copy of the 5-Year Warranty for Standing Seam Metal Roof System (SSMRS), a sample copy which is attached to this Section.

SD-14 Samples\

Accessories\; *FIO*\.

One sample of each type of flashing, trim, closure, thermal spacer block, cap and similar items. Size shall be sufficient to show construction and configuration.

Roof Panels\; *GA*\.

One piece of each type to be used, \~9 inches~\ long, full width.

Factory Color Finish\; *GA*\.

Three 3 by 5 inches samples of each type and color.

Fasteners\; *FIO*\.

Two samples of each type to be used, with statement regarding intended use. If so requested, random samples of bolts, nuts, and washers as delivered to the jobsite shall be taken in the presence of the Contracting Officer and provided to the Contracting Officer for testing to establish compliance with specified requirements.

Insulation\; *FIO*\.

One piece, 12 by 12 inches of each type and thickness to be used, with a label indicating the rated permeance (if faced) and R-values. The flame spread, and smoke developed rating shall be shown on the label or provided in a letter of certification.

Gaskets and Insulating Compounds\; *FIO*\.

Two samples of each type to be used and descriptive data.

Sealant\; *FIO*\.

One sample, approximately 1 pound and descriptive data.

Concealed Anchor Clips\; *FIO*\.

Two samples of each type used.

Subpurlins\; *FIO*\.

One piece, 9 inches long.

EPDM Rubber Boots\; *FIO*\.

One piece of each type.

1.6 DELIVERY AND STORAGE

Materials shall be delivered to the site in a dry and undamaged condition and stored out of contact with the ground. Materials shall be covered with weathertight coverings and kept dry. Storage accommodations for roof covering shall provide good air circulation and protection from surface staining.

1.7 WARRANTY

The standing seam metal roof system (SSMRS) shall be warranted as outlined below against water leaks, win damage, and deficient materials arising out of or caused by ordinary wear and tear by the ewlements at the site.

1.7.1 Contractor's Weathertightness & Wind Damage Warranty for SSMRS

The Standing Seam Metal Roof System shall be warranted by the Contractor for a period of five (5) years against water leakage or any damage due to sustained winds up to and including the design wind speed of 90 MPH. The Standing Seam Metal Roof System covered under this warranty shall include the entire roofing system including but not limited to the standing seam metal roof panels, all of its accessories, components and trim, including all penetrations, such as pipe, vents, curbs, skylights, interior or exterior gutters and deownspouts, and eave, ridge, hip, valley, rake, gable, wall, or other roof system flashings installed to provide a weathertight roof system, including items specified in other sections of these specifications, that become part of the Standing Seam Metal Roof System. All leaks and damage due to wind up to the design wind speed shall be repaired or replaiced as approved by the Contracting Officer and shall warrant and cover the entire cost of repair or replacement, including all material, labor, and related markups. The Contractor may supplement this warranty with written warranties from the installer and/or manufacturer, which shall be submitted alongwith Contractor's warranty. However the Contractor shall be ultimately responsible for this warranty. The Contractor's written warranty shall be as outlined in attached example WARRANTY FOR STANDING SEAM METAL ROOF SYSTEMS (SSMRS), and shall start upon final acceptance of the facility or the date the Government takes possession, whichever is earliier. It is understood that the Contractor's Performace Bond will remain effective throughout the five (5) year Contractor's warranty period, for the entire Standing Seam Metral Roof System as outlined above.

1.7.2 Manufacturer's Material Warranty for SSWRS

The Contractor shall furnish the following manufacturer's material warranties. A manufacturer's twenty (20) year material warranty that the aluminum, zinc-coated steel or aluminum-zinc coated steel as specified herein, will not rupture, fail structurally, or perforate under normal atmospheric conditions at the site, shall be furnished in writing. Liability under this warranty shall be limited exclusively to the cost of either repairing or replacing nonconforming, ruptured, perforated, or structurally failed coil material. A manufacturer's twenty year exterior material finish warranty on the factory colored finish shall be furnished in writing that the finish, under normal atmospheric conditions at the site, will not crack, peel, or delaminate, will not chalk in excess of a numerical rating of eight (8) when measured in accordance with the standard procedures specified in ASTM D 659 and will not fade or change colors in excess of five (5) NBS units as measured per ASTM D 2244. Liability under this warranty is exclusively limited to refinishing or replacing the defective coated coil material. These material warranties shall include all coil materials furnished for SSMRS panels, flashing, accessories and trim fabricated from the coil material.

PART 2 - PRODUCTS

2.1 *ROOF PANELS*\

Panels shall be either steel or aluminum and shall have a factory colorfinish. Length of sheets shall be sufficient to cover the entire length of any unbroken roof slope when such slope is 30 feet or less. When length of run exceeds 30 feet and panel laps are provided, each sheet in the run shall extend over three or more supports. Sheets longer than 30 feet may be furnished if approved by the Contracting Officer. Width of sheets shall provide not more than 24 inches of coverage in place. SSMR system with roofing panels greater than 12 inches in width shall have standing seams rolled during installation by an electrically driven seaming machine. Height of standing seams shall be not less than 3 inches. Standing seam rib spacing shall be 24 inches on center. Reference drawings for profile.

AM001 2.1.1 Steel Panels

Zinc-coated steel conforming to \-ASTM A 924-\ and \-ASTM A 653-\; aluminum-zinc alloy coated steel conforming to \-ASTM A 792-\, AZ 55 coating; or aluminum-coated steel conforming to \-ASTM A 463-\, Type 2, coating designation T2 65. Panels shall have a minimum thickness of ~~\~0.011 mm\~~ \~0.024 inch~, except that when the mid field of the roof is subject to design wind uplift pressures of \~60 psf~\ or greater the entire roof system shall have a minimum thickness of \~0.030 inch.~\ Panels shall be within 95 percent of tested thickness.

2.2 *CONCEALED ANCHOR CLIPS*\

Concealed anchor clips shall be the same as the tested roofing system. Clip bases shall have factory punched or drilled holes for attachment. Clips shall be made from multiple pieces with the allowance for the total thermal movement required to take place within the clip. Single piece clips may be acceptable when the manufacturer can substantiate that the

system can accommodate the thermal cyclic movement under sustained live or snow loads.

2.3 *ACCESSORIES*

Accessories shall be compatible with the covering furnished. Flashing, trim, metal closure strips, caps, roof curbs, and similar metal accessories shall be not less than the minimum thicknesses specified for roofing panels. Exposed metal accessories shall be finished to match the panels furnished. Molded closure strips shall be closed-cell or solid-cell synthetic rubber or neoprene, or polyvinyl chloride premolded to match configuration of the covering and shall not absorb or retain water. Thermal spacer blocks and other thermal barriers at concealed clip fasteners shall be as recommended by the manufacturer.

2.4 *FASTENERS*

Fasteners for steel roof panels shall be zinc-coated steel, aluminum, corrosion resisting steel, or nylon capped steel, type and size specified below or as otherwise approved for the applicable requirements. Fasteners for structural connections shall provide both tensile and shear ultimate strengths of not less than 750 pounds per fastener. Fasteners for accessories shall be the manufacturer's standard. Exposed roof fasteners shall be sealed or have sealed washers on the exterior side of the covering to waterproof the fastener penetration. Washer material shall be compatible with the covering; have a minimum diameter of 3/8 inch for structural connections; and gasketed portion of fasteners or washers shall be neoprene or other equally durable elastomeric material approximately 1/8 inch thick. Exposed fasteners for factory color finished panels shall be factory finished to match the color of the panels.

2.4.1 Screws

Screws for attaching anchor devices shall be not less than No. 14. Other screws shall be as recommended by the manufacturer to meet the strength design requirements of the panels.

2.4.2 Bolts

Bolts shall be not less than 1/4 inch diameter, shouldered or plain shank as required, with locking washers and nuts.

2.4.3 Structural Blind Fasteners

Blind screw-type expandable fasteners shall be not less than 1/4 inch diameter. Blind (pop) rivets shall be not less than 9/32 inch minimum diameter.

2.5 *SUBPURLINS*

Subpurlins shall have minimum 16ga thickness and have a minimum yield strength of 50000 psi.

AM001 2.6 *FACTORY COLOR FINISH*

Roof panels shall have a factory applied polyvinylidene fluoride finish on the exposed side. The exterior finish shall consist of a baked-on fluoropolymer topcoat with an appropriate prime coat. Color shall be as selected by Contracting officer from manufacturer's full range of colors. The exterior coating shall be a nominal 0.025 1.0 mil thickness consisting of a polyvinylidene fluoride topcoat of not less than 0.7 dry film thickness and the paint manufacturer's recommended primer of not less than 0.005 .2 mil thickness. The interior color finish shall consist of a backer coat with a dry film thickness of 0.013 mm .5 mil thick prime coat. The exterior color finish shall meet the test requirements specified below.

AM001 2.6.1 Salt Spray Test

A sample of the sheets shall withstand a salt spray test for a minimum of 1000 hours in accordance with \-ASTM B 117-\, including the scribe requirement in the test. Immediately upon removal of the panel from the test, the coating shall receive a rating of not less than 8F, few No. 8 blisters, as determined by \-ASTM D 714-\; and a rating of 6, 1/8 inch failure at scribe, as determined by \-ASTM D 1654-\.

2.6.2 Formability Test

When subjected to testing in accordance with \-ASTM D 522-\, the coating film shall show no evidence of fracturing to the naked eye.

2.6.3 Accelerated Weathering, Chalking Resistance and Color Change

A sample of the sheets shall be tested for a minimum of 1000 hours in accordance with \-ASTM G 23-\, Method 2, using a Type EH apparatus with cycles of 60 minutes radiation and 60 minutes condensing humidity. The coating shall withstand the weathering test without cracking, peeling, blistering, loss of adhesion of the protective coating, or corrosion of the base metal. Protective coating that can be readily removed from the base metal with tape in accordance with \-ASTM D 3359-\, Test Method B, shall be considered as an area indicating loss of adhesion. Following the accelerated weathering test, the coating shall have a chalk rating not less than No. 8 in accordance with \-ASTM D 4214-\ test procedures, and the color change shall not exceed 5 CIE or Hunter Lab color difference (delta E) units in accordance with \-ASTM D 2244-\, For sheets required to have a low gloss finish, the chalk rating shall be not less than No. 6 and the color difference shall be not greater than 7 units.

2.6.4 Humidity Test

When subjected to a humidity cabinet test in accordance with \-ASTM D 2247-\ for 1000 hours, a scored panel shall show no signs of blistering, cracking, creepage or corrosion.

2.6.5 Impact Resistance

Factory-painted sheet shall withstand direct and reverse impact in accordance with \-ASTM D 2794-\ equal to 1.5 times metal thickness in expressed in inch-pounds, with no loss of adhesion.

2.6.6 Abrasion Resistance Test

When subjected to the falling sand test in accordance with \-ASTM D 968-\, the coating system shall withstand a minimum of 50 liters of sand before the appearance of the base metal. The term "appearance of base metal" refers to the metallic coating on steel or the aluminum base metal.

AM001 2.6.7 Specular Gloss

Finished roof surfaces shall have a specular gloss value of 10 or less at an angle of 85 degrees when measured in accordance with \-ASTM D 523-\.

2.6.8 Pollution Resistance

Coating shall show no visual effects when immersion tested in a 10 percent hydrochloric acid solution for 24 hours in accordance with \-ASTM D 1308-\.

2.7 *INSULATION*

R-values shall be determined at a mean temperature of 75 degrees F in accordance with \-ASTM C 518-\. Insulation shall be a standard product with the insulation manufacturer, factory marked or identified with insulation manufacturer's name or trademark and R-value. Identification shall be on individual pieces or individual packages. Insulation including facings, shall have a flame spread not in excess of 25 and a smoke developed rating not in excess of 50 when tested in accordance with \-ASTM E 84-\. The stated R-value of the insulation shall be certified by an independent Registered Professional Engineer if tests are conducted in the insulation manufacturer's laboratory.

2.7.1 Blanket Insulation

Glass-fiber-blanket insulation, complying with ASTM C 991, Type II, of 0.5-lb/cu. Ft. (8-kg/cu. m) density, thickness as indicated, with a flame-spread rating of 25 or less, and 2-inch- (50-mm) wide, continuous, vapor-tight edge tabs.

a. Facing: Vinyl-reinforced polyester.

b. Retainer Strips: .019-inch (0.5-mm) thick, formed, galvanized steel retainer clips colored to match insulation facing.

AM001 2.8 STEEL SUPPORT PLATE

Provide 16 Ga. minimum support plate at all ridges, hips and valleys. Also provide a minimum 16 Ga. minimum support plate underneath all gutter assemblies.

2.9 *SEALANT*

Sealants shall be elastomeric type containing no oil or asphalt. Exposed sealant shall be clear and shall cure to a rubberlike consistency. Sealant placed in the roof panel standing seam ribs shall be provided in accordance with the manufacturer's recommendations.

2.10 *GASKETS AND INSULATING COMPOUNDS*

Gaskets and insulating compounds shall be nonabsorptive and suitable for insulating contact points of incompatible materials. Insulating compounds shall be nonrunning after drying.

AM001 2.11 STAINLESS STEEL GUTTER

~~Provide 16 Ga. Minimum steel, gutters. Gutters shall be the same material, color and finish as the SSMRS roof panels.~~

Provide 22 Ga. Minimum steel, gutters. Gutters shall be the same material, color and finish as the SSMRS roof panels. Profile as indicated.

2.12 *EPDM RUBBER BOOTS*

Flashing devices around pipe penetrations shall be flexible, one-piece devices molded from weather-resistant EPDM rubber. Rubber boot material shall be as recommended by the manufacturer. The boots shall have base rings made of aluminum or corrosion resisting steel that conform to the contours of the roof panel to form a weather-tight seal.

2.13 UNDERLAYMENTS

2.13.1 Felt underlayment

Felt underlayment shall be No. 30 felt in accordance with ASTM D 226, Type II.

2.13.2 Ruberized Underlayment

Ruberized underlayment shall be equal to "Ice and Water Shield" as manufactured by Grace Construction Products, "Winterguard" as manufactured by Certain Teed Coeporation, or "Weather Watch Ice and Water Barrier" as manufactured by GAF Building Materials Corporation.

2.13.3 Slip Sheet

Slip sheet shall be 0.50 pound per square rosin sized unsaturated building paper.

PART 3 - EXECUTION

3.1 INSTALLATION

Installation shall be in accordance with the manufacturer's erection instructions and drawings. Dissimilar materials which are not compatible when contacting each other shall be insulated from each other by means of gaskets or insulating compounds. Molded closure strips shall be installed wherever covering sheets terminate in open-end configurations, exclusive of flashings. The closure strip installation shall be weather-tight and sealed. Screws shall be installed with a clutching screw gun, to assure screws are not stripped. Field test shall be conducted on each gun prior to starting installation and periodically thereafter to assure it is adjusted properly to install particular type and size of screw as recommended by manufacturer's literature. Improper or mislocated drill

holes shall be plugged with an oversize screw fastener and gasketed washer; however, sheets with an excess of such holes or with such holes in critical locations shall not be used. Exposed surfaces and edges shall be kept clean and free from sealant, metal cuttings, hazardous burrs, and other foreign material. Stained, discolored, or damaged sheets shall be removed from the site.

AM001 3.1.1 Subpurlins

Unless otherwise shown, subpurlins shall be anchored to the purlins or other structural framing members with bolts or screws. The subpurlin spacing shall not exceed 30 inches~\ for entire roof.

3.1.2 Roof Panel Installation

Roof panels shall be installed with the standing seams in the direction of the roof slope. The side seam connections for installed panels shall be completed at the end of each day's work. Method of applying joint sealant shall conform to the manufacturer's recommendation to achieve a complete weather-tight installation. End laps of panels shall be provided in accordance with the manufacturer's instructions. Closures, flashings, EPDM rubber boots, roof curbs, and related accessories shall be installed according to the manufacturer's drawings. Fasteners shall not puncture covering sheets except as provided for in the manufacturer's instructions for erection and installation. Expansion joints for the standing seam roof system shall be installed at locations indicated on the contract drawings and other locations indicated on the manufacturer's drawings.

3.1.3 Concealed Anchor Clips

Concealed anchor clips shall be fastened directly to the structural framing members. The maximum distance, parallel to the seams, between clips shall be 30 inches on center at the corner, edge, and ridge zones, and 5 feet maximum on centers for the remainder of the roof.

3.2 INSULATION INSTALLATION

Insulation shall be installed as indicated and in accordance with manufacturer's instructions.

3.2.1 Blanket Insulation

Blanket insulation shall be installed over the purlins and held tight against the metal roofing. It shall be supported by an integral facing or other commercially available support system.

3.3 UNDERLAYMENT

3.3.1 Underlayment

Underlayment types shall be installed where shown on the drawings; they shall be installed directly over the substrate. Install a slip sheet as a top layer, beneath the metal roofing panels, to prevent adhesion. All underlayments shall be installed so that successive strips overlap the next lower strip un shingle fashion. Underlayment shall be installed in accordance with manufacturer's written instructions, The underlayments

shall ensure that any water that penetrates below the metal roofing panels will drain outside of the building envelope.

3.3.2 Rubberized Underlayment

Rubberized underlayment shall be installed per manufacturer's written instructions at all roof edges, hips and valleys.

3.4 CLEANING AND TOUCH-UP

Exposed SSSMR systems shall be cleaned at completion of installation. Debris that could cause discoloration and harm to the panels, flashings, closures and other accessories shall be removed. Grease and oil films, excess sealants, and handling marks shall be removed and the work shall be scrubbed clean. Exposed metal surfaces shall be free of dents, creases, waves, scratch marks, and solder or weld marks. Immediately upon detection, abraded or corroded spots on shop-painted surfaces shall be wire brushed and touched up with the same material used for the shop coat. Factory color finished surfaces shall be touched up with the manufacturer's recommended touch up paint.

- - o O o - -

**FIVE (5) YEAR WARRANTY
FOR
STANDING SEAM METAL ROOF SYSTEM (SSMRS)**

PROJECT DESCRIPTION AND LOCATION (Include Bldg. No.): _____
CORPS OF ENGINEERS CONTRACT NUMBER: _____
SPECIFICATION SECTION NUMBER & DESCRIPTION:
07416 STANDING SEAM METAL ROOF SYSTEM

CONTRACTOR: _____
ADDRESS: _____
POINT OF CONTACT: _____
TELEPHONE NUMBER: _____

OWNER: _____
ADDRESS: _____
POINT OF CONTACT: _____
TELEPHONE NUMBER: _____

CONSTRUCTION AGENT: _____
ADDRESS: _____
POINT OF CONTACT: _____
TELEPHONE NUMBER: _____

THE ABOVE FACILITY IS WARRANTED BY _____ FOR A PERIOD OF FIVE (5) YEARS AGAINST LEAKAGE OR ANY DAMAGE DUE TO SUSTAINED WINDS UP TO AND INCLUDING THE DESIGN WIND SPEED OF ____ MILES PER HOUR (MPH). THE STANDING SEAM METAL ROOF SYSTEM (SSMRS) COVERED UNDER THIS WARRANTY SHALL INCLUDE THE ENTIRE ROOFING SYSTEM INCLUDING THE STANDING SEAM METAL ROOF PANELS, ALL OF ITS ACCESSORIES, COMPONENTS AND TRIM, INCLUDING ALL PENETRATIONS, SUCH AS PIPE, VENTS, CURBS, SKYLIGHTS, INTERIOR OR EXTERIOR GUTTERS AND DOWNSPOUTS, AND EAVE, RIDGE, HIP, VALLEY, RAKE, GABLE, WALL, OR OTHER ROOF SYSTEM FLASHINGS INSTALLED TO PROVIDE A WEATHERTIGHT ROOF SYSTEM, INCLUDING ITEMS SPECIFIED IN OTHER SECTIONS OF THE SPECIFICATIONS, THAT ARE PART OF THE STANDING SEAM METAL ROOF SYSTEM (SSMRS). ALL LEAKS AND DAMAGE DUE TO WIND UP TO THE DESIGN WIND SPEED SHALL BE REPAIRED OR REPLACED AS APPROVED BY THE CONTRACTING OFFICER AND SHALL COVER THE ENTIRE COST OF REPAIR OR REPLACEMENT, INCLUDING ALL MATERIAL, LABOR, AND RELATED MARKUPS. THE ABOVE REFERENCED WARRANTY COMMENCED ON THE DATE OF FINAL ACCEPTANCE ON _____ AND WILL REMAIN IN EFFECT FOR STATED DURATION FROM THIS DATE.

SIGNED, DATED, AND NOTARIZED (BY COMPANY PRESIDENT)

(Company President)
(Date)

(SEE REVERSE SIDE FOR SUPPLEMENTAL PROVISIONS AND EXCLUSIONS)

**FIVE (5) YEAR WARRANTY
FOR
STANDING SEAM METAL ROOF SYSTEM (SSMRS)**

THE CONTRACTOR MAY SUPPLEMENT THIS WARRANTY WITH WRITTEN WARRANTIES FROM THE INSTALLER AND/OR MANUFACTURER OF THE SSMRS, WHICH SHALL BE SUBMITTED ALONG WITH THE CONTRACTOR'S WARRANTY. HOWEVER, THE CONTRACTOR WILL BE ULTIMATELY RESPONSIBLE FOR THE WARRANTY AS OUTLINED IN THE SPECIFICATIONS AND AS INDICATED IN THIS WARRANTY EXAMPLE.

EXCLUSIONS FROM COVERAGE

1. NATURAL DISASTERS, ACTS OF GOD (LIGHTING, FIRE, EXPLOSIONS, HURRICANES, TORNADOES, EARTHQUAKES, HAIL AND SUSTAINED WINDS EXCEEDING _90_ MPH AS RECORDED AT THE NEAREST METEOROLOGICAL CENTER.
2. ACTS OF NEGLIGENCE OR ABUSE OR MISUSE BY GOVERNMENT OR OTHER PERSONNEL, INCLUDING ACCIDENTS, VANDALISM, CIVIL DISOBEDIENCE, WAR, OR DAMAGE CAUSED BY FALLING OBJECTS.
3. DAMAGE BY STRUCTURAL FAILURE, SETTLEMENT, MOVEMENT, DISTORTION, WARPAGE, OR DISPLACEMENT OF THE BUILDING STRUCTURE OR ALTERATIONS MADE TO THE BUILDING.
4. CORROSION CAUSED BY EXPOSURE TO MARINE (SALT WATER) ATMOSPHERE; CONSTANT SPRAY OF EITHER SALT OR FRESH WATER; CORROSIVE CHEMICALS, ASH OR FUMES GENERATED OR RELEASED INSIDE OR OUTSIDE THE BUILDING FROM CHEMICAL PLANTS, FOUNDRIES, PLATING WORKS, KILNS, FERTILIZER FACTORIES, PAPER PLANTS, AND THE LIKE.
5. FAILURE OF ANY PART OF THE SSMRS DUE TO ACTIONS BY THE OWNER TO INHIBIT FREE DRAINAGE FROM THE ROOF AND ALLOW PONDING WATER.
CONTRACTOR'S DESIGN SHALL INSURE FREE DRAINAGE FROM THE ROOF AND NOT ALLOW PONDING WATER.
6. THIS WARRANTY APPLIES TO THE STANDING SEAM METAL ROOF SYSTEM (SSMRS), AND DOES NOT INCLUDE ANY CONSEQUENTIAL DAMAGE TO THE BUILDING INTERIOR OR CONTENTS, BUT WHICH SHALL BE COVERED BY THE WARRANTY OF CONSTRUCTION CLAUSE INCLUDED IN THIS CONTRACT.
7. THIS WARRANTY CANNOT BE TRANSFERRED TO ANOTHER OWNER WITHOUT WRITTEN CONSENT OF THE CONTRACTOR AND THIS WARRANTY AND THE CONTRACT PROVISIONS WILL TAKE PRECEDENCE OVER ANY CONFLICTS WITH STATE STATUTES, UNLESS OTHERWISE APPROVED IN WRITING BY THE CONTRACTING OFFICER.

RECEIPT OF NOTICE BY TELEPHONE OR IN WRITING BY THE OWNER OR CONTRACTING OFFICER THAT LEAKS OR DAMAGE DUE TO WIND UP TO THE DESIGN WIND SPEED SHALL BE RESPONDED TO WITHIN 48 HOURS OF RECEIPT OF NOTICE. EMERGENCY REPAIRS TO PREVENT FURTHER ROOF LEAKS SHALL BE INITIATED IMMEDIATELY AND WRITTEN PLAN SHALL BE SUBMITTED FOR APPROVAL TO REPAIR OR REPLACE THE SSMRS. ACTUAL WORK FOR PERMANENT REPAIRS OR REPLACEMENT SHALL BE STARTED WITHIN 30 DAYS AFTER RECEIPT OF NOTICE, AND COMPLETED WITHIN A REASONABLE TIME FRAME. IF CONTRACTOR FAILS TO ADEQUATELY RESPOND TO THE WARRANTY PROVISIONS AS STATED IN THE CONTRACT AND AS CONTAINED HEREIN THE CONTRACTING OFFICER MAY HAVE THE STANDING SEAM METAL ROOF SYSTEM (SSMRS) REPAIRED OR REPLACED BY OTHERS AND CHARGE THE COST TO THE CONTRACTOR.

A FRAMED COPY OF THIS WARRANTY SHALL BE POSTED IN THE MECHANICAL ROOM OR OTHER APPROVED LOCATION DURING THE ENTIRE WARRANTY PERIOD.

SECTION 07600

SHEET METALWORK, GENERAL

10/94

PART

1 - GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

\-ASTM A 167-\	(1996) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
\-ASTM B 32-\	(1995b) Solder Metal
\-ASTM B 209-\	(1995) Aluminum and Aluminum-Alloy Sheet and Plate
\-ASTM B 221-\	(1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
\-ASTM B 370-\	(1992) Copper Sheet and Strip for Building Construction
\-ASTM D 226-\	(1994) Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
\-ASTM D 543-\	(1987) Resistance of Plastics to Chemical Reagents
\-ASTM D 822-\	(1995) Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus
\-ASTM D 828-\	(1993) Tensile Breaking Strength of Paper and Paperboard
\-ASTM D 1784-\	(1992) Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
\-ASTM D 2822-\	(1991) Asphalt Roof Cement
\-ASTM D 3656-\	(1994) Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns

\-ASTM D 4022-\ (1994) Coal Tar Roof Cement, Asbestos
Containing

\-ASTM D 4586-\ (1993) Asphalt Roof Cement, Asbestos Free

\-ASTM E 96-\ (1995) Water Vapor Transmission of Materials

INSECT SCREENING WEAVERS ASSOCIATION (ISWA)

\-ISWA IWS 089-\ (1990) Recommended Standards and
Specifications for Insect Wire Screening
(Wire Fabric)

SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
(SMACNA)

\-SMACNA-02-\ (1993) Architectural Sheet Metal Manual

1.2 GENERAL REQUIREMENTS

Sheet metalwork shall be accomplished to form weathertight construction without waves, warps, buckles, fastening stresses or distortion, and shall allow for expansion and contraction.

1.2.1 Coordination

Cutting, fitting, drilling, and other operations in connection with sheet metal required to accommodate the work of other trades shall be performed by sheet metal mechanics. Application of bituminous strip flashing over various sheet metal items is covered in Section \=07535=\ MODIFIED BITUMEN ROOFING. Exposed edges shall be hemmed. Bottom edge of exposed vertical surfaces shall be broken in an angle to form drips. Flashing at the end of a run shall be formed into a three dimensional configuration to direct water to the outside of the system. Joints shall be installed as specified in Table 1. Roof Flanges of sheet metal shall be set in accordance with elastomeric (SDPE) roofing manufacturer's recommendations. Installation of sheet metal items used in conjunction with roofing shall be coordinated with roofing work to permit continuous roofing operations. Factory fabricated components shall be packed in cartons marked with the manufacturer's name or trademark. Bulk materials, from which items are field fabricated, shall have manufacturer's name or trademark printed or embossed at frequent intervals to permit easy identification. Sheet metalwork pertaining to Mechanical/Plumbing is specified in DIVISION 15.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section \=01330=\ SUBMITTAL PROCEDURES:

SD-04 Drawings\

Materials\; *FIO*\.

Drawings of sheet metal items showing weights, gauges or thicknesses; types of materials; expansion-joint spacing; fabrication details; and installation procedures. Materials shall not be delivered until after the approved detail drawings have been returned to the contractor.

SD-08 Statements\

Contractor Quality Control\; *FIO*\.

Quality Assurance Plan including a checklist of points to be observed prior to start of roofing work.

SD-14 Samples\; *FIO*\.

Samples of materials proposed for use, upon request.

1.4 DELIVERY, STORAGE, AND HANDLING

Materials shall be adequately packaged and protected during shipment and shall be inspected for damage, dampness, and wet-storage stains upon delivery to the jobsite. Materials shall be clearly labeled as to type and manufacturer. Sheet metal items shall be carefully handled to avoid damage. Materials shall be stored in dry, ventilated areas until immediately before installation.

PART 2 - PRODUCTS

AM001

2.1 *MATERIALS*

Any metal listed in TABLE I for a particular item may be used, unless otherwise specified or indicated. Materials shall conform to the requirements specified below and to the thicknesses and configurations established in TABLE I. Different items need not be of the same metal, except that if copper or copper clad stainless steel is selected for any exposed item, all exposed items shall be copper or copper clad stainless steel. All materials with roofing manufacturer's recommendations.

2.1.1 Accessories

Accessories and other items essential to complete the sheet metal installation, though not specifically indicated or specified, shall be provided.

2.1.2 Aluminum Extrusions

\-ASTM B 221-\, Alloy 6063, Temper T5.

2.1.3 Bituminous Cement

Type I asphalt cement conforming to \-ASTM D 2822-\ or \-ASTM D 4586-\.

2.1.4 Sealant

Unless otherwise specified, sealant shall be an elastomeric weather resistant sealant as specified in Section \=07901=\.

2.1.5 Fasteners

Fasteners shall be compatible with the fastened material and shall be the type best suited for the application.

2.1.6 Felt

\-ASTM D 226-\, Type I.

2.1.7 Polyvinyl Chloride (PVC) Reglets

\-ASTM D 1784-\, Class 14333D, 0.075 inch minimum thickness.

2.1.8 Aluminum Alloy Sheet and Plate

\-ASTM B 209-\, form, alloy, and temper appropriate for use. Factory applied finish shall be as selected by contracting officer from the full range of manufacturers colors.

2.1.9 Copper

\-ASTM B 370-\, Temper H 00.

2.1.10 Stainless Steel

\-ASTM A 167-\, Type 302 or 304; fully annealed, dead soft temper.

2.1.11 Solder

\-ASTM B 32-\, 95-5 tin-antimony.

2.1.12 Louver Screen

Type III aluminum alloy insect screening conforming to \-ISWA IWS 089-\]. Factory applied finish shall be as selected by contracting officer from the full range of manufacturers colors.

AM001 2.1.13 Galvanized Steel

ASTM A 526 with coating designation G90, not chemically treated, not oiled, phosphatized, [painted] [factory prefinished]. [Prefinished galvanized steel shall be factory primed and coated with a full strength fluoropolymer containing a minimum of 70 percent Kynar 500 resin. Color shall be the same as for roof panels. Prefinish coating shall carry a 20-year manufacturer's warranty against cracking, peeling, blistering, color change in excess of 5 NBS units as measured in accordance with ASTM D 2244, and chalking in excess of 8 as measured in accordance with ASTM D 4214.]

PART 3 - EXECUTION

3.1 GENERAL

Items such as gutters, and downspouts and louvers shall be fabricated in conformance with \-SMACNA-02-\ and as indicated. Unless otherwise specified or indicated, exposed edges shall be folded back to form a 1/2 inch hem on the concealed side, and bottom edges of exposed vertical

surfaces shall be angled to form drips. Bituminous cement shall not be placed in contact with roofing membranes other than built-up roofing.

AM001 3.2 EXPANSION JOINTS

Expansion joints shall be provided as specified in \-SMACNA-02-\.

Expansion joints in continuous sheet metal shall be provided at 40 foot intervals for copper and stainless steel and at 32 foot intervals for aluminum, except extruded aluminum gravel stops and fasciae which shall have expansion joints at not more than 12 foot spacing. Joints shall be evenly spaced. An additional joint shall be provided where the distance between the last expansion joint and the end of the continuous run is more than half the required interval spacing.

Expansion joints in continuous sheet metal shall be provided at 40 foot intervals for galvanized steel. Joints shall be evenly spaced. An additional joint shall be provided where the distance between the last expansion joint and the end of the continuous run is more than half the required interval spacing.

AM001 3.3 PROTECTION OF ALUMINUM

Aluminum shall not be used where it will be in contact with copper or where it will contact water which flows over copper surfaces. Aluminum that will be in contact with wet or pressure-treated wood, mortar, concrete, masonry, or ferrous metals shall be protected against galvanic or corrosive action by one of the following methods:

AM001 3.3.1 Paint

Aluminum surfaces shall be solvent cleaned and given one coat of zinc-molybdate primer and one coat of aluminum paint as selected by contracting officer from manufacturer's full range of colors.

3.3.2 Nonabsorptive Tape or Gasket

Nonabsorptive tape or gasket shall be placed between the adjoining surfaces and cemented to the aluminum surface using a cement compatible with aluminum.

3.4 CONNECTIONS AND JOINTING

3.4.1 Soldering

Soldering shall apply to copper, and stainless steel items. Edges of sheet metal shall be pretinned before soldering is begun. Soldering shall be done slowly with well heated soldering irons so as to thoroughly heat the seams and completely sweat the solder through the full width of the seam. Edges of lead coated material to be soldered shall be scraped or wire brushed to produce a bright surface, and seams shall have a liberal amount of flux brushed in before soldering is begun. Edges of stainless steel to be pretinned shall be treated with soldering acid flux. Soldering shall follow immediately after application of the flux. Upon completion of soldering, the acid flux residue shall be thoroughly cleaned from the sheet metal with a water solution of washing soda and rinsed with clean water.

3.4.2 Riveting

Joints in aluminum sheets 0.040 inch or less in thickness shall be mechanically made.

3.4.3 Seaming

Flat-lock and soldered-lap seams shall finish not less than 1 inch wide. Unsoldered plain-lap seams shall lap not less than 3 inches unless otherwise specified. Flat seams shall be made in the direction of the flow.

3.5 CLEATS

A continuous cleat shall be provided where indicated or specified to secure loose edges of the sheet metalwork. Continuous cleats shall be at least one gauge heavier than the metal held down by the cleat. Butt joints of cleats shall be spaced approximately 1/8 inch apart. The cleat shall be fastened to supporting wood construction with nails evenly spaced not over 12 inches on centers. Where the fastening is to be made to concrete or masonry, screws shall be used and shall be driven in expansion shields set in concrete or masonry. The cleat for fascia anchorage shall be installed to extend below supporting construction to form a drip and to allow the flashing to be hooked over the edge at least 3/4". The cleat shall be of sufficient width to insure a rigid installation. Where horizontal nailer is vented insulation and the cleat is placed over masonry or concrete, the cleat shall be installed over 1.585 mm washers placed at screws. Washers shall be of metal that is electrolytically comparable with the continuous cleat.

3.6 GUTTERS AND DOWNSPOUTS

Gutters and downspouts shall be installed as indicated. Gutters shall be supported by cleats spaced not less than 36 inches apart. Downspouts shall be rigidly attached to the building. Supports for downspouts shall be spaced according to manufacturer's recommendations.

3.7 FLASHINGS

Flashings shall be installed at locations indicated and as specified below. Sealing shall be according to the flashing manufacturer's recommendations. Flashings shall be installed at intersections of roof with vertical surfaces and at projections through roof, except that flashing for heating and plumbing, including piping, roof, and floor drains, and for electrical conduit projections through roof or walls are specified in other sections. Except as otherwise indicated, counter flashings shall be provided over base flashings. Perforations in flashings made by masonry anchors shall be covered up by an application of bituminous plastic cement at the perforation. Flashing shall be installed on top of joint reinforcement. Flashing shall be formed to direct water to the outside of the system.

3.7.1 Base Flashing

Metal base flashing shall be coordinated with roofing work. Metal base flashing shall be set in plastic bituminous cement over the roofing membrane, nailed to nailing strip, and secured in place on the roof side

with nails spaced not more than 3 inches on centers. Metal base flashing shall not be used on built-up roofing.

3.7.2 Counter Flashings

Except as otherwise indicated, counter flashings shall be provided over base flashings. Counter flashing shall be installed as shown in \-SMACNA-02-\. Where bituminous base flashings are provided, the counter flashing shall extend down as close as practicable to the top of the cant strip. Counter flashing shall be factory formed to provide spring action against the base flashing.

3.7.3 Stepped Flashing

Stepped flashing shall be installed where sloping roofs surfaced with shingles abut vertical surfaces. Separate pieces of base flashing shall be placed in alternate shingle courses.

3.7.4 Through-Wall Flashing

Through-wall flashing includes sill, lintel, and spandrel flashing. The flashing shall be laid with a layer of mortar above and below the flashing so that the total thickness of the two layers of the mortar and flashing are the same thickness as the regular mortar joints. Flashing shall not extend further into the masonry backup wall than the first mortar joint. Joints in flashing shall be lapped and sealed. Flashing shall be one piece for lintels and sills.

3.7.4.1 Lintel Flashing

Lintel flashing shall extend the full length of lintel. Flashing shall extend through the wall one masonry course above the lintels and shall be bent down over the vertical leg of the outer steel lintel angle not less than 2 inches, or shall be applied over top of masonry and precast concrete lintels. Bedjoints of lintels at control joints shall be underlaid with sheet metal bond breaker.

3.7.4.2 Sill Flashing

Sill flashing shall extend the full width of the sill and not less than 4 inches beyond ends of sill except at control joint where the flashing shall be terminated at the end of the sill.

3.7.5 Valley Flashing

Valley flashing shall be installed as specified in \-SMACNA-02-\ and as indicated.

3.8 FASCIA

Gravel stops and fascia shall be fabricated and installed as indicated and in accordance with \-SMACNA-02-\.

Sheets shall be fabricated with out longitudinal joints except where two-piece fasciae are used when fascia depth exceeds 7". Provision for expansion shall be located at joints. Factory fabricated internal and

external corner units with mitered joints shall be provided. Roof flange and splice plate of the gravel stop and fascia shall extend out on the roofing felt. Roof flange shall be secured with nails spaced not greater than 3" on center, located within 1" of the outer edge of the flange. The fascia shall not be face nailed except as specified for two piece fasciae. The upper piece of two-piece fasciae shall be the same as specified above, except that the fascia depth shall be at least 3 ½" and it shall overlap the lower fascia piece by not less than 2". The lower piece shall be hooked ½" over the edge strip and splice plate and face nailed on 12" centers, 1" below the top of the sheet. The upper fascia shall be hemmed ½" at the lower edge and formed to fit tightly against the lower fascia. Either smooth or corrugated sheets may be used.

3.9 INSTALLATION OF LOUVERS

Louvers shall be rigidly attached to the supporting construction. The installation shall be rain-tight. Louver screen shall be installed as indicated.

3.10 REGLETS

Reglets shall be a factory fabricated product of proven design, complete with fittings and special shapes as required. Open-type reglets shall be filled with fiberboard or other suitable separator to prevent crushing of the slot during installation. Reglet plugs shall be spaced not over 12 inches on centers and reglet grooves shall be filled with sealant. Friction or slot-type reglets shall have metal flashings inserted the full depth of slot and shall be lightly punched every 12 inches to crimp the reglet and counter flashing together. Polyvinyl chloride reglets shall be sealed with the manufacturer's recommended sealant.

3.11 CONTRACTOR QUALITY CONTROL

The Contractor shall establish and maintain a quality control procedure for sheet metal used in conjunction with roofing to assure compliance of the installed sheet metalwork with the contract requirements. Any work found not to be in compliance with the contract shall be promptly removed and replaced or corrected in an approved manner. Quality control shall include, but not be limited to, the following:

- a. Observation of environmental conditions; number and skill level of sheet metal workers; condition of substrate.
- b. Verification of compliance of materials before, during, and after installation.
- c. Inspection of sheet metalwork for proper size and thickness, fastening and joining, and proper installation.

The actual quality control observations and inspections shall be documented and a copy of the documentation furnished to the Contracting Officer at the end of each day.

AMM001

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES

<u>Item Description</u>	<u>Gal- vanized steel, gage</u>
EXPOSED SHEET METAL:	
Building expansion joints:	
Cap.....	24
Waterstop - bellows or flanged-U-type.....	24
Cleats (Continuous)...	20
Covering on minor flat, pitched or curved surfaces.....	24
Downspouts, heads and leaders.....	24
Flashings:	
Base.....	24
Cap, stepped or valley.....	24
Gravel stops and fFasciae Extrusions ---	
sheets, corrugated	24 Kynar Finish
sheets, smooth	24 Kynar Finish

AM001

Gutters (girth):	
<u>Up to 15 inches.....</u>	<u>26 24</u>
15 to 20 inches.....	24
20 to 25 inches.....	22
25 to 30 inches.....	20
Gutter brackets (girth):	
Up to 15 inches.....	1/8"x1"
15 to 20 inches.....	1/8"x1-1/2"
20 to 24 inches.....	1/8"x2"

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES (continued)

<u>Item Description</u>	<u>Gal- vanized steel, gage</u>	
Gutter cleats and cover plates.....	26	
<u>Scupper, conductor head and lining.....</u>	<u>25</u>	<u>24</u>
Strainers (wire gage).....	No. 12	
Reglets.....	---	
Counterflashings.....	24	
Pressure Bars.....		1/4x3/16x2"
Expansion Joint Curb Clip.....	1/8x8"	
Counterflashing Receiver.....	20	
Cradle Support.....	3/16x1"	
Sanitary Vent Pipe Flashing*.....	24	
Tubular Penetration Flashing.....	24	
"H" Column hood flashing.....	16	
Roof drain gravel stop.....	---	
Bond breaker.....	---	
*4 lb. lead and preformed neoprene also recommended for metal and PVC pipes, respectively.		

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES (continued)

<u>Item Description</u>	<u>Gal- vanized steel, gage</u>
Louvers (Width, inches):	
Up to 24 inches.....	24
24 to 36 inches.....	20
36 to 48 inches.....	18
48 to 60 inches.....	16
Copings.....	25
Pitch pockets.....	24
Through-wall, flashings above roof line.....	---

TABLE 2. SHEET METAL JOINTS

Item <u>Designation</u>	<u>Type of Joint</u>		<u>Remarks</u>
	Copper, Galvanized Steel, Stainless <u>Steel</u>	<u>Aluminum</u>	
Building expansion joint at roof	1-1/4 inch single lock standing seam, cleated.	1-1/4 inch single standing seam, cleated.	-----
Cleats (Continuous)	Butt	Butt	-----
Flashings: Base	1-inch, flat locked, soldered.	1-inch flat locked, sealed.	Use hard setting sealant for locked aluminum joints
	3-inch lap for expansion joint.	3-inch lap for expansion joint.	Each expansion joint for all metals shall have one continuous strip of 1/16-inch thick by 1/4-inch wide preformed tape sealant.
Cap-in reglet	3-inch lap.	3-inch lap.	Seal groove with elastomeric sealant (a).
Cap - two- piece	Receiver 3-inch lap. Cap piece 3-inch lap.	-----	-----
Stepped	3-inch lap.	3-inch lap.	-----
Through-wall spandrel flashing (metal)	1-1/2 inch mechanical interlock.	-----	-----

TABLE 2. SHEET METAL JOINTS (Cont)

Item <u>Designation</u>	<u>Type of Joint</u>		<u>Remarks</u>
	Copper, Galvanized Steel, Stainless <u>Steel</u>	<u>Aluminum</u>	
Valley	6-inch lap, cleated.	6-inch lap, cleated.	-----
Gravel stops: Extrusions	-----	Butt with 1/2-inch space.	Use sheet flashing beneath and a cover plate.
Sheet, corrugated	Butt with 1/4-inch space.	Butt with 1/4-inch space.	Use sheet flashing beneath and a cover plate or a combination unit.
Sheet, smooth	Butt with 1/4-inch space.	Butt with 1/4-inch space.	Use 6-inch cover plate.
Gutters	1-1/2 inch lap, riveted and soldered.	1-inch flat locked, riveted, and sealed.	Use hard setting sealant for locked aluminum joints.
Pitch pockets	1-inch soldered lap.	1-inch flat locked and sealed.	Use hard setting sealant for locked aluminum joints.
Reglets	Butt joint.	-----	Seal reglet groove with elastomeric sealant.(a)

(a) Polyvinyl chloride type reglet shall be sealed with manufacturer's recommended butyl rubber sealant.

- - o O o - -

DIVISION 8 - DOORS AND WINDOWS

SECTION 08305 - ACCESS DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

1.1.1 Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

1.2.1 This Section includes the following types of access doors:

1.2.1.1 Wall access doors.

1.2.1.2 Fire-rated wall access doors.

1.2.1.3 Ceiling access doors for drywall ceilings.

1.2.1.4 Fire-rated ceiling access doors for drywall ceilings.

1.2.2 Related Sections: The following Sections contain requirements that relate to this Section:

1.3 SUBMITTALS

1.3.1 General: Submit each item in this Article according to the Conditions of Contract and Division 1 Specification Sections.

1.3.2 Product data for each type of access door assembly specified, including details of construction relative to materials, individual components, profiles, finishes, and fire-protection ratings (if required).

1.3.2.1 Include complete schedule, including types, general locations, sizes, wall and ceiling construction details, latching or locking provisions, and other data pertinent to installation.

1.3.3 Shop drawings showing fabrication and installation of customized access doors and frames, including details of each frame type, elevations of door design types, anchorage, and accessory items.

1.4 QUALITY ASSURANCE

1.4.1 Single-Source Responsibility: Obtain access doors for entire Project from one source and by a single manufacturer.

1.4.2 Fire-Rated Door Assemblies: Units that comply with NFPA 80, are identical to door and frame assemblies tested for fire-test-response characteristics per test method as indicated below, and are labeled and listed by UL, Warnock Hersey, or another testing and inspecting agency acceptable to authorities having jurisdiction.

1.4.2.1 Test Method for Vertical Installations: ASTM E 152.

1.4.2.2 Test Method for Horizontal Installations: ASTM E 119.

1.5 COORDINATION

1.5.1 Verification: Determine specific locations numbers and sizes for access doors needed to gain access to all concealed equipment, and indicate on schedule specified under "Submittals" Article.

1.5.2 Provide a suitably sized access door wherever needed for access to concealed equipment, valves, switches, dampers etc. wether or not specifically indicated.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

2.1.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

2.1.1.1 Cesco Products.

2.1.1.2 J.L. Industries.

2.1.1.3 Larsen's Manufacturing Co.

2.1.1.4 Milcor, Inc.

2.1.1.5 Nystrom, Inc.

2.2 MATERIALS

2.2.1 Steel Sheet: ASTM A 366/A 366M commercial-quality, cold-rolled steel sheet with baked-on, rust-inhibitive primer.

2.2.2 Zinc-Coated Steel Sheet: ASTM A 591/A 591M, Electrolytic zinc-coated steel sheet with Class C coating and phosphate treatment to prepare surface for painting.

AM001 2.3 ACCESS DOORS

2.3.1 Noninsulated, Fire-Rated Doors for Walls: Self-latching units consisting of frame, trim, door, and hardware, including automatic closer, interior latch release, and complying with the following requirements:

ONE EA. THRESHOLD PEMCO, 2005AS

WEATHERSTRIPPING HEAD, JAMB, & SILL PEMCO 316AS

HINGES- (BOTTOM), 1 PAIR- STANLEY CB1900P

- 4 1/2 " x 4 x 652

ONE EA. LOCKSET -F04 X 626

ONE EA. CLOSER C52251

- a. Door: Thickness 0.042
- b. Frame: 0.053-inch- (1.52-mm-) thick steel sheet.
- c. Hinge: Continuous type.
- d. Latches: Bolt type, operated by either a ring turn or flush key device (keyed alike).
- e. Fire-Protection Rating for Walls: As indicated.

2.3.2 Lock Trim

Lock trim shall be cast, forged, or heavy wrought construction of commercial plain design. In addition to meeting the test requirement of BHMA A156.2 or BHMA A156.13, knobs, lever handles, escutcheons shall be 0.050 inch thick, if unreinforced. If reinforced, the outer shell shall be 0.035 inch thick and the combined thickness shall be 0.070 inch. Lever handles shall be of plain design with ends returned to no more than 1/2 inch from the door face. Lever handle shall be of solid construction.

2.3.3 REFERENCES TO MANUFACTURERS AND PRODUCTS

The manufacturer's names and their products referenced in this section shall indicate the color, texture, and pattern required for the materials listed. The products furnished shall be the same or an approved equal to the color, texture, and pattern indicated as well as the material quality and performance specified in the applicable technical sections. The use of the manufacturer's names and products do not preclude the use of other manufacturer's products of approved equal color, texture, or pattern finishes as long as all requirements are met.

2.4 FABRICATION

2.4.1 General: Manufacture each access door assembly as an integral unit ready for installation.

2.4.2 Steel Access Doors and Frames: Continuous welded construction. Grind welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access panels to types of supports indicated.

2.4.2.1 Exposed Flange: Nominal 1 to 1-1/2 inches (25.4 to 38.1 mm) wide around perimeter of frame.

2.4.2.2 For gypsum board assemblies or gypsum veneer plaster, furnish frames with edge trim for gypsum board or gypsum base.

2.4.2.3 For full-bed plaster applications, furnish frames with galvanized expanded metal lath and exposed casing bead, welded to perimeter of frame.

2.4.2.4 For installation in masonry construction, furnish frames with adjustable metal masonry anchors.

2.4.3 Recessed Panel Doors: Form face of panel to provide recess for application of applied finish. Reinforce panel as required to prevent buckling.

2.4.3.1 Furnish Recessed panel door where finish schedule indicates wall covering finish other than paint.

2.4.4 Locking Devices: Furnish number required to hold door in flush, smooth plane when closed.

2.4.4.1 For recessed panel doors, provide access sleeves for each locking device. Furnish plastic grommets and install in holes cut through finish.

PART 3 - EXECUTION

3.1 PREPARATION

3.1.1 Advise Installers of other work about specific requirements relating to access door installation, including sizes of openings to receive access door and frame, as well as locations of supports, inserts, and anchoring devices. Furnish inserts and anchoring devices for access doors that must be built into other construction. Coordinate delivery with other work to avoid delay.

3.2 INSTALLATION

3.2.1 Comply with manufacturer's instructions for installing access doors.

3.2.2 Set frames accurately in position and attach securely to supports with plane of face panels aligned with adjacent finished surfaces.

3.2.3 Install concealed-frame access doors flush with adjacent finish surfaces.

3.3 ADJUST AND CLEAN

3.3.1 Adjust hardware and panels after installation for proper operation.

3.3.2 Remove and replace panels or frames that are warped, bowed, or otherwise damaged.

END OF SECTION 08305